NOTICES OF FINAL RULEMAKING

The Administrative Procedure Act requires the publication of the final rules of the state's agencies. Final rules are those which have appeared in the *Register* 1st as proposed rules and have been through the formal rulemaking process including approval by the Governor's Regulatory Review Council. The Secretary of State shall publish the notice along with the Preamble and the full text in the next available issue of the *Arizona Administrative Register* after the final rules have been submitted for filing and publication.

NOTICE OF FINAL RULEMAKING

TITLE 4. PROFESSIONS AND OCCUPATIONS

CHAPTER 7. BOARD OF CHIROPRACTIC EXAMINERS

PREAMBLE

1. **Sections Affected** — **Rulemaking Action**

R4-7-101.	Amend
R4-7-801.	New Section
R4-7-802.	New Section
R4-7-803.	New Section

2. **The specific authority for the rulemaking, including both the authorizing statute (general) and the statutes the rules are implementing (specific):**

   Authorizing statute: A.R.S. § 32-904(B)(2)

   Implementing statute: A.R.S. §§ 32-931(B) and 41-1072

3. **The effective date of the rules:**

   January 1, 1998

4. **A list of all previous notices appearing in the Register addressing the final rule:**

   3 A.A.R. 82, January 10, 1997

   2 A.A.R. 5087, December 27, 1996

   2 A.A.R. 3801, August 30, 1996

   1 A.A.R. 1066, July 14, 1995

5. **The name and address of agency personnel with whom persons may communicate regarding the rulemaking:**

   Name: Patrice A. Pritzl, Executive Director

   Address: State of Arizona, Board of Chiropractic Examiners
   5060 North 19th Avenue, Suite 416
   Phoenix, AZ 85015

   Telephone: (602) 255-1444

   Fax Number: (602) 255-4289

6. **An explanation of the rule, including the agency's reasons for initiating the rule:**

   In previous publications, rules under Article 9 were identified as well. R4-7-101, R4-7-801, R4-7-802, and R4-7-803 have been split from that Article for further publication.

   R4-7-101 amends the list of definitions to include "business day."

   R4-7-801, R4-7-802, and R4-7-803 defines continuing education required by A.R.S. § 32-931. These are the continuing education requirements necessary for license renewal on an annual basis. In addition, the rule provides the public with information on minimum continuing education requirements.

7. **A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:**

   Not applicable.

8. **The summary of the economic, small business, and consumer impact:**

   The economic, small business, and consumer impact statement for the State of Arizona, Board of Chiropractic Examiners, analyzes the costs, savings, and benefits that accrue to the Board of Chiropractic Examiners, Secretary of State, Board-licensed individuals, and the consumer public.

R4-7-101 defines "business day". There is no anticipated cost to licensees or the consumer public.

R4-7-801, R4-7-802, R4-7-803 - The impact of the rules on Board procedures, compliance, and inspection costs is minimal. The Board is anticipated to experience a minor increase in investigation and compliance because these rules define continuing education requirements for license issuance and renewal. The estimated cost to the Secretary of State is minimal and stems from the Secretary of State's staff time publishing rules. The estimated cost to licensees is $200 per year for tuition or registration fees. The consumer public will benefit from this rule through access to providers who maintain continuing education standards within the profession. While licensees may pass on the cost for continuing education courses to the consumer public, the increased cost to the individual consumer will be minimal in that education related expenses per licensee will approximate $200 annually. Licensees will benefit in that enhanced and regulated standards within the profession encourages utilization of services.

9. A description of the changes between the proposed rules, including supplemental notices, and final rules (if applicable):
Not applicable.

10. A summary of the principal comments and the agency response to them:
Two comments were received regarding a requirement that the licensee's signature be notarized in R4-7-802(B). The requirement that the licensees signature be notarized has been deleted. One comment was received regarding the requirement that the licensee maintain documentation of completion of continuing education for 5 years. The comment expressed a preference of 3 years. The proposed rule was not amended.

11. Any other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rules:
Not applicable.

12. Incorporations by reference and their location in the rules:
None.

13. Was this rule previously adopted as an emergency rule?
No.

14. The full text of the rules follows:

TITLE 4. PROFESSIONS AND OCCUPATIONS

CHAPTER 7. BOARD OF CHIROPRACTIC EXAMINERS

ARTICLE 1. BOARD OF CHIROPRACTIC EXAMINERS

Section
R4-7-101. Definitions

ARTICLE 8. CONTINUING EDUCATION

Section
R4-7-801. Continuing Education Requirements
R4-7-802. Documenting Compliance With Continuing Education Requirements
R4-7-803. Effect of Suspension on Continuing Education Requirements

ARTICLE 1. BOARD OF CHIROPRACTIC EXAMINERS

R4-7-101. Definitions

1. No Change.
2. No Change.
3. No Change.
4. No Change.
5. No Change.
6. No change.
7. No Change.
8. No Change.
9. "Business day" means Monday through Friday, 8 a.m. to 5 p.m., except for state-recognized holidays.

ARTICLE 8. CONTINUING EDUCATION

R4-7-801. Continuing Education Requirements

A. To be eligible to renew a license, a licensee shall complete 12 credits of continuing education between January 1 and December 31 of each year. A credit of continuing education is earned for each 60 minutes of education.

B. A licensee shall obtain continuing education credit in the following manner:

1. By attending or participating in a course, seminar, or workshop on subjects listed in A.R.S. §§ 32-922(B) or 32-922.02 that are taught at or sponsored by an organization listed in A.R.S. § 32-921(B).
2. By teaching a post-graduate course as a faculty member of a Council on Chiropractic Education-accredited chiropractic college. Continuing education credits earned in this manner shall be calculated as 2 credits of continuing education for each hour of post-graduate course instruction for the 1st course presentation, and 1 credit for each hour of instruction thereafter. A maximum of 6 credits of continuing education credit may be earned in the manner annually.

C. The Board shall award continuing education credit only for the subjects listed in A.R.S. §§ 32-922(B) or 32-922.02.

D. The Board may grant an extension of 90 days to comply with the continuing education requirements. To qualify for an extension, a licensee shall:

1. Timely file a license renewal application and renewal fee; and
2. Submit a written request for an extension, including good cause why the continuing education requirements were not met.

E. The following reasons may constitute good cause for the Board to grant an extension of time to comply with the continuing education requirements:

1. The licensee graduated from an accredited chiropractic college, or a college that meets the requirements of A.A.C. R4-7-702, during the year that the continuing education requirements were to be met;
2. The licensee lived in a country where there was no accredited chiropractic college, or a college that meets the requirements of A.A.C. R4-7-702, for at least 7

months during the year that the continuing education requirements were to be met;

3. The licensee was in active military service for at least 7 months during the year that the continuing education requirements were to be met; or
4. The licensee was not able to complete the continuing education requirements because of a documented disability of the licensee or the licensee's spouse, child, or parent.

F. If the Board grants an extension of time in which to complete the continuing education requirements, the continuing education credits obtained during the 90-day extension shall be applied to meet only the requirements for which the extension was granted. A licensee shall not report continuing education credit earned during a 90-day extension for a subsequent renewal year.

R4-7-802. Documenting Compliance with Continuing Education Requirements

A. A licensee shall retain documents to verify compliance with the continuing education requirements for at least 5 years from the date the continuing education credit is used to qualify the licensee for renewal.

B. With each license renewal application, a licensee shall attest by providing the licensee's signature, that the licensee has met the continuing education requirements, and will comply with subsection (A).

C. The Board may require a licensee to provide documentation to verify compliance with continuing education requirements, including that:

1. Each continuing education credit was for 60 minutes of education;
2. The requirements of subsections (A) and (B) were satisfied;
3. Continuing education credit was earned between the immediately preceding January 1 and the date that the license renewal application was filed or the date on which an extension of time expired; and
4. No continuing education credit earned between the immediately preceding January 1 and the date that the license renewal application was filed was earned under an extension of time to comply with the continuing education requirements of a previous year.

R4-7-803. Effect of Suspension on Continuing Education Requirements

A licensee whose license is suspended under A.R.S. §§ 32-923, 32-924, or 32-931, shall complete 12 credits of continuing education for each calendar year or part of a calendar year that the license is suspended before the license may be reinstated or renewed.

NOTICE OF FINAL RULEMAKING

TITLE 9. HEALTH SERVICES

CHAPTER 14. DEPARTMENT OF HEALTH SERVICES LABORATORIES

PREAMBLE

1. Sections Affected	Rulemaking Action
R9-14-601.	Amend
R9-14-602.	Amend
R9-14-603.	Amend
R9-14-604.	Renumber
R9-14-604.	New Section
R9-14-605.	Renumber
R9-14-605.	Amend
R9-14-606.	Renumber
R9-14-606.	Amend
R9-14-607.	Renumber
R9-14-607.	Amend
R9-14-608.	Renumber
R9-14-608.	Amend
R9-14-609.	Renumber
R9-14-609.	Amend
R9-14-610.	Renumber
R9-14-610.	Amend
R9-14-611.	Renumber
R9-14-611.	Amend
R9-14-612.	Renumber
R9-14-612.	Amend
R9-14-613.	Renumber
R9-14-613.	Amend
R9-14-614.	Renumber
R9-14-614.	Amend
R9-14-615.	Renumber
R9-14-615.	Amend
R9-14-616.	Renumber

R9-14-616.	Amend
R9-14-617.	Renumber
R9-14-617.	Amend
R9-14-618.	Renumber
R9-14-618.	Amend

2. The specific authority for the rulemaking, including both the authorizing statute (general) and the statutes the rules are implementing (specific):

   Authorizing statute: A.R.S. §§ 36-136(A)7, 36-136(F), 36-495.01(B), 36-495.13

   Implementing statute: A.R.S. §§ 36-495.01, 36-495.03, 36-495.05 thru 36-495.10, 36-495.12 thru 36-495.14

3. The effective date of the rules:

   The date filed with the Office of the Secretary of State following the Governor's Regulatory Review Council (GRRC) approval.

4. A list of all previous notices appearing in the Register, addressing the final rule:

   Notice of Docket Opening: 2 A.A.R. 3597, August 16, 1996

   Notice of Proposed Rulemaking: 2 A.A.R. 4626-4655, November 15, 1996

5. The name and address of agency personnel with whom persons may communicate regarding the rulemaking:

   Name: Steven D. Baker, Program Manager

   Address: Department of Health Services
   Office of Laboratory Licensure, Certification, and Training
   3443 N. Central Ave. #810
   Phoenix, AZ 85012

   Telephone: (602) 255-3454

   Fax Number: (602) 255-3462

6. An explanation of the rule, including the agency's reasons for initiating the rule:

   The rules pertain to the licensure of environmental laboratories which conduct testing of samples for contaminants, pollutants, and hazardous substances for state and federal environmental compliance purposes. The rules provide for minimum standards of proficiency, methodology, quality assurance, operation, and safety for environmental laboratories. Rules are being amended to add clarifications, make corrections, and update methodologies to the current rule.

7. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:

   Not applicable.

8. The summary of the economic, small business, and consumer impact:

   With the adoption of the proposed rules, the impact on the Department of Health Services is moderate. Under the proposed amended rules, the Department will be able to recoup at cost, the lost revenues, from new methods being currently licensed but having no associated fee. The Department of Health Services incurred expenses for developing these rules changes in conjunction with the affected organizations and individuals, writing and printing drafts, travel and attendance at public hearings. The Department will also incur a 1-time expense for development and preparation of materials mailed to individual laboratories, the printing of these materials, the cost of envelopes, and preparation for mailing and the postage.

   The estimated cost of the Secretary of State's office is minimal. This additional cost stems from the Secretary of State's staff time publishing the rules. The Governor's Regulatory Review Council will incur minimal cost in reviewing and approving the rule package. The small chemistry laboratories will see a decrease in the application fee, while the larger laboratories will see no change in application fee. Laboratories that convert from the older methods to the newer methods which involve the same technology, will experience little to no changes in the methods fees. Laboratories which expand testing into newer technologies, will see some change in the methods fees, however, this would be the case under the current rule also.

   The economic impact on the consumer, would be minimal or none, however the consumer would be able to request the newer methods required for compliance testing.

9. A description of the changes between the proposed rules, including supplemental notices, and final rules (if applicable):

   No substantive changes have been made in the text of the adopted rules from that in the proposed rules. Some grammatical, stylistic, and verbiage changes have been made to make the rules more clear, concise, and understandable. The changes include:

R9-14-601	Struck out "context" and "requires" and added "specified".
R9-14-601(2)	Struck out "required by law or is". Struck out "for a specific usage" and added "to test for the presence of the particular contaminant".
R9-14-601(3)	Added "the permit system specified in".
R9-14-601(4)	Added "the permit system specified in".
R9-14-601(5)	Added "that the Department submits".

	Struck out "submitted" on the 2nd line. Struck out "the" and added "a".
R9-14-601(9)	Deleted.
R9-14-601(10)	Renumbered to R9-14-601(9). Added ", commonly referred to as the Superfund Act".
R9-14-601(10)	Added "'Contiguous grounds' means real property which can be enclosed by a single unbroken boundary line which does not enclose property owned or leased by others."
R9-14-601(11)	Renumbered to R9-14-601(12).
R9-14-601(11)	Added "'Effluent' means an outflow, as of a stream which flows out of a facility".
R9-14-601(12)	Renumbered to R9-14-601(13).
R9-14-601(13)	Renumbered to R9-14-601(14).
R9-14-601(14)	Renumbered to R9-14-601(15).
R9-14-601(15)	Renumbered to R9-14-601(16). Struck out "et.seq." and added "through A.R.S. § 36-495.16".
R9-14-601(16)	Renumbered to R9-14-601(17).
R9-14-601(17)	Renumbered to R9-14-601(18). Added "an audit conducted by a service on". Struck out "using approved methods".
R9-14-601(18)	Renumbered to R9-14-601(19). Struck out "who" and added "which". Struck out "materials" and added "samples". Struck out "correctness" and added "results". Struck out the word "results" at the end of the sentence.
R9-14-601(19)	Renumbered to R9-14-601(20). Added "the system which includes".
R9-14-601(20)	Renumbered to R9-14-601(21). Struck out "service or performance evaluation".
R9-14-601(21)	Renumbered to R9-14-601(22).
R9-14-601(22)	Renumbered to R9-14-601(23).
R9-14-601(23)	Renumbered to R9-14-601(24).
R9-14-601(24)	Deleted.
R9-14-601(25)	Deleted.
R9-14-601(26)	Renumbered to R9-14-601(25).
R9-14-601(27)	Deleted.
R9-14-601(28)	Renumbered to R9-14-601(26). Struck out "program" and "service or performance evaluation". Added "the" before the word "EPA".
R9-14-601(29)	Deleted.
R9-14-601(30)	Renumbered to R9-14-601(27). Struck out "performance evaluation service or". Added "the" before the word "EPA".
R9-14-603	Added "Initial".
R9-14-603(A)	Reconstructed the sentence by moving the words for clarification. Deleted "R9-14-607(B)" and added "R9-14-606". Deleted "pursuant to" from the end of the last sentence.
R9-14-603(B)	Struck out "provided that the real property on which the laboratories are located can be enclosed by a single unbroken boundary line which does not enclose property owned or leased by others".
R9-14-603(C)	Added a comma after the word "laboratories".
R9-14-603(D)	Struck out "listed in".

R9-14-603(E)	Struck out "notify the laboratory director of any deficiencies in". Deleted "omissions or additional information needed". Added "determine if" and "is complete and notify the applicant with a detailed list of deficiencies if incomplete". Struck out "and payment of fees". Struck out "15 working days" and added "3 weeks" and struck out "the". Added "An application is not complete without payment of all applicable fees". Deleted "Within 15 working days from when the Department determines that". Added "Upon receipt of a complete application," and struck out "the application is complete and proper fees are submitted,". Added commas after the words "inspection" and "audit" and struck out "or". Added ", no longer than 1 month later for an in-state lab and 2 months later for an out-of-state lab. The Department and applicant may mutually agree to extend the inspection date". Deleted "After an application is determined to be complete and proper fees have been paid, the laboratory inspection shall not occur later than 30 days for an in-state lab and 60 days for an out-of-state lab, unless the Department and applicant mutually agree to a delay in the inspection date."
R9-14-603(F)	Added "provided:". Deleted "if the laboratory has submitted a complete application, paid all applicable fees, provided successful proficiency evaluation results from current EPA studies or an approved 3rd party, and provided current certification information for comparable testing being requested from another state certification program.".
R9-14-603(F)(1)	Added "The laboratory has submitted a complete application.".
R9-14-603(F)(2)	Added "The laboratory has provided successful proficiency evaluation results from current EPA studies or 3rd party evaluation audits, and".
R9-14-603(F)(3)	Added "The laboratory has provided current certification information for comparable testing from another state certification program.".
R9-14-603(G)	Added "of compliance with A.R.S. Title 36, Chapter 4.3, Article 1 and this Article,". Struck out "30 working days" and added "6 weeks".
R9-14-603(H)	Deleted "seeking initial licensure in Arizona". Struck out "a laboratory cannot demonstrate compliance with A.R.S. §§ 36-495.01 through 36-495.08 and this Article, the laboratory shall". Added "If the laboratory is not in compliance:" at the beginning of the Section. Created new subsection R9-14-603(H)(1) with the remaining language. Deleted "15 working days from the date the laboratory receives the written report of findings from the Department, a written corrective action plan to the Department with corrective action and completion dates acceptable to the Department. Laboratories seeking initial licensure shall". Struck out "have no more than". Deleted "75 working days". Struck out "from the date the laboratory receives", "written", and "from the Department to correct deficiencies listed in the Department's inspection or investigation report." Deleted "the" and "report of findings". Added "3 weeks from receipt of a report of noncompliance, the laboratory shall submit a written corrective action plan acceptable to the Department with corrective action and completion dates no longer than 4 months from the date the laboratory receives the written report of noncompliance.". Deleted "from the Department to correct deficiencies listed in the Department's inspection or investigation report.".
R9-14-603(I)	Renumbered to R9-14-603(H)(2). Deleted "30 working days" and added "6 weeks".
R9-14-603(I)(1)	Renumbered to R9-14-603(H)(3). Deleted "was" and added "is". Deleted "15 working days" and added "3 weeks".
R9-14-603(I)(2)	Renumbered to R9-14-603(H)(4). Deleted "15 working days" and added "3 weeks".
R9-14-603(I)	New Section added to conform with the licensing time frames requirements of A.R.S. § 41-1076 to read "The Department will send written notification of approval or denial of an application within 9 months for an in-state lab and 10 months for an out-of-state lab. Denials shall set forth the reasons for denial and all other information required under A.R.S. § 41-1076."
R9-14-603(K)	Deleted "180 working days" and added "9 months". Deleted "200 working days" and added "10 months". Added overall time frames in order to comply with the Licensing Time Frames statute.

R9-14-603(L)	New Section added for computation of time frames in order to comply with the Licensing Time Frames statute.
R9-14-604(A)	Deleted "To renew an existing license". Deleted "30 days" and added "1 month".
R9-14-604(B)	Deleted "15 working days" and added "3 weeks".
R9-14-604(C)	Renumbered to R9-14-604(D). Added "at any time".
R9-14-604(D)	Renumbered to R9-14-604(C).
R9-14-604(E)	Inserted new Section, "The Department shall provide the laboratory director with a written report of findings within 6 weeks from the completion of any inspection, investigation, or proficiency evaluation audit.". Renumbered existing Section as R9-14-604(F). Deleted "30 working days" and added "6 weeks".
R9-14-604(F)	Renumbered to R9-14-604(G). Deleted "30 working days upon" and added "6 weeks of".
R9-14-605(B)(1)	Changed "R9-14-609" to "R9-14-608". Changed "R9-14-610" to "R9-14-609". Changed "R9-14-613" to "R9-14-612".
R9-14-605(B)(4)	Deleted "30 working days" and added "6 weeks".
R9-14-605(C)	Took out the 2nd sentence, "The licensee shall return its license to the Department within 10 working days from the date of receipt of written notification that the Department issued a provisional license." This sentence was used to insert a new Section R9-14-605(D).
R9-14-605(D)	Renumbered to "R9-14-605(E)".
R9-14-605(E)	Renumbered to "R9-14-605(F)". Deleted "30 working days" and added "6 weeks". Deleted "may" and added "shall". Added "renewed" before the word "license".
R9-14-606(A)	Added ", except as required by A.R.S. § 41-1077" after "nonrefundable".
R9-14-606(A)(1)	Deleted "sample matrices" and added "categories of laboratory testing".
R9-14-606(A)(2)	Deleted "sample matrices" and added "categories of laboratory testing".
R9-14-606(A)(3)	Deleted "sample matrices" and added "categories of laboratory testing".
R9-14-606(B)	Added ", except as required by A.R.S. § 41-1077" after "nonrefundable".
R9-14-606(C)	Struck out "In addition to" and added "Concurrently with". Struck out "to the Department" and "the". Added "licensure of". Added ", except as required by A.R.S. § 41-1077" after "nonrefundable". Struck out "for which the laboratory seeks licensure. The Department shall calculate and collect the fee prior to the issuance of a license for the approved methods and associated instrumentation". Added "calculated by the Department".
R9-14-606(C)(8)	Deleted "New or" and "not listed above" from the last 2 entries under this Section.
R9-14-606(C)(9)	Deleted "New or" and "not listed above" from the 2nd to last entry under this Section.
R9-14-606(D)	Struck out "submit to the Department" and added "pay". Added ", except as required by A.R.S. § 41-1077" after "nonrefundable".
R9-14-606(E)	Added "the appointment of an acting laboratory director,". Added "or" before the word "ownership". Struck out "or appointment of an acting laboratory director". Struck out "the Department to amend or modify" and added "an amendment or modification to". Struck out "the license's" and added "its". Added a comma after the word "date". Struck out "and the actual expense incurred by the Department for such amendment or modification". Inserted "to delete parameters" after "3 free modifications". Added "Thereafter," at the beginning of the last sentence and deleted "modification" and replaced it with "deletion".
R9-14-606(F)	Deleted "a". Added "an annual fee of".
R9-14-607(A)	Deleted "or by" and struck out "the proficiency evaluation service".

Added "if available".

R9-14-607(B) Struck out "analyze and report results for" and added "demonstrate continued proficiency through audits provided by the".
Deleted "and". Added "program".

R9-14-607(C) Struck out "analyze and report results for" and added "demonstrate continued proficiency through audits provided by the".
Deleted "and". Added "program".

R9-14-607(D) Struck out "analyze and report results for" and added "demonstrate continued proficiency through audits provided by the".
Deleted "or". Added "program".

R9-14-607(E) Struck out "analyze and report results for" and added "demonstrate continued proficiency through audits provided by the".

R9-14-607(F) Struck out "analyze and report results for the Principal State Laboratory System performance evaluation audit or".
Added "demonstrate continued proficiency through audits provided by the".
Added "program, the Principal State Laboratory System proficiency evaluation audit program".

R9-14-607(H) Deleted "provider" and added "service".
Struck out "60 calendar days" and added "2 months".
Struck out "14 calendar days" and added "2 weeks".

R9-14-607(I) Struck out "45 working days" and added "2 months".

R9-14-608(A) Deleted all new language and struck out all existing language.
Rewrote Section for clarification due to public comments we received which indicated clarification was needed.

R9-14-608(B) Deleted all new language and struck out all existing language.
Rewrote Section for clarification due to public comments we received which indicated clarification was needed.

R9-14-608(C) Added "which are". Deleted "and".
Added "The following approved methods".
Deleted "with".
Added to the end of the subsection "This incorporation by reference contains no future editions or amendments."

KEY REFERENCE D1	Deleted "EPA/600/R-92/129" and added "EPA/600/4-90/020".
	Deleted "2, June, 1991" and added "July 1990".
KEY REFERENCE D3	Deleted "3rd" and added "4th". Added ", and March 1997".
KEY REFERENCE E	Deleted "1995" and added "1996".
KEY REFERENCE I	Deleted "1994" and added "1995".
KEY REFERENCE M	Struck out entire reference.
KEY REFERENCE M1	Deleted.
KEY REFERENCE M2	Deleted.
KEY REFERENCE M3	Deleted.
KEY REFERENCE N	Struck out entire reference.
KEY REFERENCE O	Struck out "1990" and added "1995".
KEY REFERENCE Q	Deleted "1993" and added "1995".
KEY REFERENCE R	Struck out "May 15, 1989, Revision E" and added "March 1992, Revision F".
KEY REFERENCE S	Deleted "1994" and added "1995".

R9-14-609 Deleted "reference" and added "Key Reference".
Struck out "Z" and added " 'X' or 'Y' ".

R9-14-609(D)(2)	Added KEY "D2" and Approved Method "524.2" that were left out of the *Arizona Administrative Register.*
R9-14-609(D)(3)	Added KEY "D2" and Approved Method "524.2" that were left out of the *Arizona Administrative Register.*
R9-14-610	Deleted "the" and added "an". Deleted "specifications" and added "method".
R9-14-610(B)(45)	Deleted "45". Struck out Key "A" and Approved Method "420.1, 420.2".
R9-14-610(B)(46)	Renumbered to R9-14-610(B)(45).
R9-14-610(B)(47)	Renumbered to R9-14-610(B)(46).
R9-14-610(B)(48)	Renumbered to R9-14-610(B)(47).
R9-14-610(B)(49)	Renumbered to R9-14-610(B)(48).
R9-14-610(B)(50)	Renumbered to R9-14-610(B)(49).
R9-14-610(B)(51)	Renumbered to R9-14-610(B)(50).
R9-14-610(B)(52)	Renumbered to R9-14-610(B)(51).
R9-14-610(B)(53)	Renumbered to R9-14-610(B)(52).
R9-14-610(B)(54)	Renumbered to R9-14-610(B)(53).
R9-14-610(B)(55)	Renumbered to R9-14-610(B)(54).
R9-14-610(B)(56)	Renumbered to R9-14-610(B)(55).
R9-14-610(B)(57)	Renumbered to R9-14-610(B)(56).
R9-14-610(B)(58)	Renumbered to R9-14-610(B)(57).
R9-14-610(B)(59)	Renumbered to R9-14-610(B)(58).
R9-14-610(B)(60)	Renumbered to R9-14-610(B)(59).
R9-14-610(B)(61)	Renumbered to R9-14-610(B)(60).
R9-14-610(B)(62)	Renumbered to R9-14-610(B)(61).
R9-14-610(B)(63)	Renumbered to R9-14-610(B)(62).
R9-14-610(B)(64)	Renumbered to R9-14-610(B)(63).
R9-14-610(B)(65)	Renumbered to R9-14-610(B)(64).
R9-14-610(B)(66)	Renumbered to R9-14-610(B)(65).
R9-14-610(B)(67)	Renumbered to R9-14-610(B)(66).
R9-14-610(B)(68)	Renumbered to R9-14-610(B)(67).
R9-14-610(B)(69)	Renumbered to R9-14-610(B)(68).
R9-14-610(B)(70)	Renumbered to R9-14-610(B)(69).
R9-14-610(B)(71)	Renumbered to R9-14-610(B)(70).
R9-14-610(B)(72)	Renumbered to R9-14-610(B)(71).
R9-14-610(B)(73)	Renumbered to R9-14-610(B)(72).
R9-14-610(B)(74)	Renumbered to R9-14-610(B)(73).
R9-14-610(C)(1)	Struck out "1." from subsection number.
R9-14-610(C)(2)	Struck out entire subsection.
R9-14-610(C)(3)	Struck out entire subsection.
R9-14-611	Deleted "permit" and added "ADEQ or EPA". Deleted "the" and added "an". Deleted "specifications" and added "method".
R9-14-611(D)(6)	Deleted Approved Method "3052".
R9-14-612	Deleted "the" and added "an". Deleted "specifications" and added "method".

R9-14-613(A)(4) Added a comma after the word "goals".

R9-14-613(A)(9) Added a comma after the word "outliers".
Struck out "and procedures for determining" and added "the determination of the".

R9-14-613(A)(10) Changed "Statement" to "statement".

R9-14-613(B)(1) Changed the comma after the word "licensure" to a period.
Struck out "unless it" and added "If the laboratory".
Struck out "in a" and added "it may".
Moved the word "only" from the end of the sentence.

R9-14-613(B)(6) Deleted "the". Changed "limit" to "limits".

R9-14-613(B)(9) Deleted "are" and added "is".
Added "no more than" and "from" and deleted "±" and "or less".

R9-14-614(C)(4) Deleted "that" and added "on".
Added a period after the word "testing".
Added "The documentation shall provide that all these personnel".
Added "their" and "of".
Deleted the period after the word "testing" and added "and the".
Changed "Documentation" to "documentation".

R9-14-615(G)(3)(a)Added "as described in R9-14-613".

R9-14-615(G)(3)(b)Added "be".

R9-14-617(B) Struck out "The" and added "Upon request, the".
Struck out "to the Department, upon request," and "as to the".
Added "of its", "its" and "to the Department".
Struck out "performed by the mobile laboratory".

R9-14-618(C) Broke this Section into 2 subsections for clarification purposes and added a new subsection.

10. A summary of the principal comments and the agency response to them:

Nancy Turner and Timothy Rand, Turner Laboratories Inc.
R9-14-605(B)(3) Written comment received: Because of the length of time it currently takes the EPA to provide feedback on WP/WS studies, we feel that a mechanism should be formalized which allows a laboratory that fails 2 consecutive PE parameters to upgrade from a provisional to a regular license.

Response: A mechanism for a laboratory to upgrade from a provisional license due to PE failures, would depend on the reason for the failures. Because the failures vary in severity, the Department does not intend to unnecessarily burden all laboratories with a most comprehensive mechanism to insure that the worst case scenario would be appropriately addressed.

The Department currently utilizes ERA to provide 3rd party proficiency evaluation samples when the EPA WP/WS are not available or practical for the purpose of demonstrating proficiency after the failure to pass the EPA proficiency evaluation studies.

Nancy Turner and Timothy Rand, Turner Laboratories Inc.
R9-14-606(7) Written comment received: 8240 is deleted from the approved analyte list. Why? If this method will not be promulgated in the future, can you give us the reference for this?

Response: Referring to R9-14-606(C)(7), according to EPA's *Proposed Update III for Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW-846), 3rd Edition,* this method is expected to be withdrawn as an approved method. This method was originally written based on outdated packed column technology. The approved methods referenced in the rule are based on the current capillary column technology. Provisions in R9-14-611 of the rule allows for the usage of the older method should it still be referenced on a permit issued by EPA or ADEQ.

Nancy Turner and Timothy Rand, Turner Laboratories Inc.
R9-14-606(8) Written comment received: 8080 is deleted from the approved analyte list. Why? If this method will not be promulgated in the future, can you give us the reference for this?

Response: Referring to R9-14-606(C)(8), according to EPA's *Proposed Update III for Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW-846), 3rd Edition,* this method is expected to be withdrawn as an approved method. This method was originally written based on outdated packed column technology. The approved methods referenced in the rule are based on the current capillary column technology. Provisions in R9-14-611 of the rule allow for the usage of the older method should it still be referenced on a permit issued by EPA or ADEQ.

Nancy Turner and Timothy Rand, Turner Laboratories Inc.
R9-14-607(H) Written comment received: Why is the requirement to "test all proficiency evaluation audit samples with holding times" included? This is unnecessary in most cases (PE samples are generally received in sealed ampules) and often impractical (these studies are often received past "holding time").

Response: PE samples that are received in sealed ampules are actually concentrates which are used to prepare the PE sample in the laboratory. The holding time for the analysis does not apply to the PE concentrate. Once the actual sample is prepared from the concentrate, then the sample must be analyzed within the required holding time. Additionally, it is expected that eventually PE samples will be received as actual full volume samples and not concentrates, in which case holding times would most certainly apply.

Nancy Turner and Timothy Rand, Turner Laboratories Inc.
R9-14-608(A) Written comment received: The additions to this Section need some clarification. If a lab uses a method that is no longer promulgated, but is required by a permit, how will the lab be licensed for that method? Also, in light of the 90 day requirement for implementation of new promulgated methods, will the DHS implement a procedure for updating labs regarding method status (that is, through the Information Updates)?

Response: If EPA or ADEQ requires that a method be performed, the laboratory can request certification for that method as per R9-14-608(A) and R9-14-608(B). These Sections have been rewritten in order to provide further clarification regarding the ability of the Director to approve alternate methods when the method is required by EPA or ADEQ for compliance purposes.
The Department deleted the requirement that labs comply with new promulgated methods.

Nancy Turner and Timothy Rand, Turner Laboratories Inc.
R9-14-609(A)(4) Written comment received: We believe the Colilert method (9223B) should be added to this list of approved methods for fecal coliform testing.

Response: The EPA has not determined the accuracy of this method for wastewater and therefore has not promulgated this as being an acceptable method for fecal coliform testing.

Nancy Turner and Timothy Rand, Turner Laboratories Inc.
R9-14-609(D) Written comment received: Method 524.2 is missing (it is present for TTHMs, but not the complete 524.2 list).

Response: This method was left out of the *Arizona Administrative Register* and will be included in the final rule.

Nancy Turner and Timothy Rand, Turner Laboratories Inc.
R9-14-610(B) Written comment received: Method 413.2 should be retained. It is still required by Pima County Wastewater permits.

Response: Method 413.1 which is referenced in the rule, is the only EPA method referenced in 40 CFR Part 136, 1996 as being an approved method for the analysis of oil and grease in wastewater.
If EPA or ADEQ requires that this method be performed, the laboratory can request certification for this method as per R9-14-608(B).

Nancy Turner and Timothy Rand, Turner Laboratories Inc.
R9-14-615(A) Written comment received: Regarding the addition that copied records may be removed from the laboratory, we feel that a statement should be added to protect the confidentiality of the laboratory's clients.

Response: We don't find overwhelming evidence to indicate the need to add a statement to protect the confidentiality of the laboratory's clients when copied records are removed from the laboratory. There is substantive evidence that case law, Public Records Act, and public policy all favor openness of records and public access to the records. Only under special judicially determined cases should deletion of clients names be made.
The laboratory can request that specific data being copied and removed by the Department be reviewed by the laboratory for confidential business information.

Scott H. Thomas, Fennemore Craig Law Offices
R9-14-610(B) Written comment received: For wastewater analysis the proposed rules appear to require using the version of Method 200.7 found in "Methods for the determination of Metals in Environmental Samples - Supplement 1, May 1994" (the "1994 supplement"). This method has not yet been approved for NPDES compliance samples. EPA's NPDES regulations require the use of Methods contained in Part 136, Table IB. For Method 200.7 this table only references the procedure described in 40 CFR Part 136, appendix C.

Response: Rule R9-14-608(B) allows a laboratory to obtain approval from the Director for a method which is not on the approved methods list. Where a sample is being analyzed for National Pollutant Discharge Elimination System, NPDES, compliance purposes the laboratory must use the Methods required in Part 136. In that case if the analysis is performed by Method 200.7 the laboratory must use the procedure in 40 CFR Part 136, appendix C. Since EPA and ADEQ require this procedure to be followed, the laboratory can request certification for this procedure as per R9-14-608(B).

Scott H. Thomas, Fennemore Craig Law Offices
R9-14-608.C, KEY REFERENCES M, M1, M2, M3, and N, R9-14-610(C)(2) and R9-14-610(C)(3) Written comment received.

Don Armstrong and Tom Berry, Pima County Wastewater Management
Harlan Agnu, Pima County Attorney's Office
R9-14-608.C, KEY REFERENCES M, M1, M2, M3, and N, R9-14-610(C)(2) and R9-14-610(C)(3) Oral comments presented at the December 18, 1996, Public Hearing.

Comments raised concerns regarding the revised approved methods for whole effluent toxicity (WET) testing, particularly for assessing compliance in an arid environment. Concerns were raised about the accuracy, precision, reliability, ruggedness, ease of use, and ability to achieve a detection limit appropriate for the proposed use of the method, for these approved methods.

Response: We have stricken these Key References and methods from our rules due to the concerns that were raised.

Don Armstrong, Pima County Wastewater Management
R9-14-610(B)(45) Oral comment presented at the December 18, 1996, Public Hearing.

Comments raised called for ADHS to eliminate the Total Phenol parameter for wastewater testing, due to problems with precision, accuracy, and incidences with false negatives and false positives. The Department was informed of legislative action taken in 1990, whereby the water quality standards for phenolics were suspended pending further administrative rulemaking procedures by the director of ADEQ.

Response: It was confirmed with ADEQ, that the water quality standard was revised by ADEQ due to the legislative action in 1990. The ADEQ current water quality standards contain regulations for specific phenols rather than total phenols. Therefore, we have stricken the Total Phenol parameter for wastewater testing.

11. Any other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rules:
None.

12. Incorporations by reference and their location in the rules:
R9-14-608:

"Methods for Chemical Analysis of Water and Wastes," EPA 600/4-79-020, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, revised March 1983.

"Methods for the Determination of Metals in Environmental Samples-Supplement 1", EPA 600/R-94-111, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, May 1994.

"Methods for the Determination of Inorganic Substances in Environmental Samples", EPA-600/R-93-100, August 1993.

"Interim Radiochemical Methodology for Drinking Water," EPA 600/4-75-008, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, revised March 1976.

"Standard Methods for the Examination of Water and Wastewater," APHA-AWWA-WPCF, Washington, D.C., 19th Edition, 1995.

"Hach Handbook of Water Analysis," 1979, Hach Chemical Company, Loveland, CO 80537.

"Iron, 1,10-Phenanthroline Method," Method 8008, 1980, Hach Chemical Company, P.O. Box 389, Loveland, CO 80537.

"Methods for the Determination of Organic Compounds in Drinking Water," EPA/600/4-88/039, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, July 1991.

"Methods for the Determination of Organic Compounds in Drinking Water, Supplement I", EPA/600/4-90/020, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, July 1990.

"Methods for the Determination of Organic Compounds in Drinking Water, Supplement II", EPA/600/R-92/129, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, August 1992.

"Manual for the Certification of Laboratories Analyzing Drinking Water, 4th Edition," EPA 570/9-90/008, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, April, 1990, and Updated September, 1992, and March 1997.

"The Determination of the Maximum Total Trihalomethane Potential," Method 510.1, EMSL, EPA, Cincinnati, Ohio 45268.

"Tetra-through Octa-Chlorinated Dioxins and Furans by Isotope-Dilution HRGC/HRMS", EPA-821-B-94-005, October 1994.

"Appendix A To Part 136 - Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater," 40 CFR Part 136, 1996.

"Appendix C to Part 136 - Inductively Coupled Plasma - Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes, Method 200.7," 40 CFR Part 136, 1996.

"Test Methods for Evaluating Solid Waste," EPA SW-846, 3rd Edition, EPA, Office of Solid Waste and Emergency Response, Washington, D.C., September 1986, and updated September 1994.

"PCB's in Transformer Oil/Waste Oil," EPA 600/4-81-045, September 1982.

"National Institute for Occupational Safety and Health Manual of Analytical Methods," U.S. Department of Health and Human Services, Cincinnati, Ohio, 3rd Edition, February 1984, updated May 1989.

"Interim Method for Determination of Asbestos in Bulk Insulation Samples," EPA 600/4- 82-020, EPA, Environmental Monitoring Systems Laboratory, Research Triangle Park, North Carolina, March 1982.

"Analytical Method for Determination of Asbestos Fibers in Water," EPA/600/4-83-043, EPA, Environmental Research Labora-

tory, Athens, GA, September 1983.

"Annual Book of ASTM Standards," Volume 11.01 and 11.02, Water and Environmental Technology, American Society for Testing and Materials, Philadelphia, Pennsylvania, 1995.

"Methods for Determination of Inorganic Substances in Water and Fluvial Sediments", U.S. Department of Interior, U.S. Geological Survey, Washington, D.C., 3rd Edition, 1989.

Test Methods for the Determination of: "Ethylene Dibromide and Dibromochloropropane in Water," BLS-127, revised June 1990; "TPH in Soil," 418.1AZ, revised September 7, 1994; "Ethylene Glycol in "Wastewater," BLS-188, revised April 1990; and "Quantitation of Fuel Class Hydrocarbons by GC," BLS-191, issued September 1991, Department of Health Services, Division of State Laboratory Services, Phoenix, Arizona.

"Prescribed Procedures for Measurement of Radioactivity in Drinking Water," EPA 600/4-80-032, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, August 1980.

"National Primary and Secondary Ambient Air Quality Standards," 40 CFR Part 50, Subchapter C, 1995.

"USEPA Manual of Methods for Virology," EPA 600/4-84/013, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, February 1984.

"Standards of Performance For New Stationary Sources, Appendix A -Test Methods," 40 CFR Part 60, Appendix A, 1995.

"Arizona Testing Manual For Air Pollutant Emissions," Arizona Office of Air Quality, Phoenix, Arizona, March 1992, Revision F.

"National Emission Standards for Hazardous Air Pollutants, Appendix B Test Methods and Appendix C - Quality Assurance Procedures," 40 CFR Part 61, Appendix B and C, 1995.

Broadway, et al., "Final Report of Equivalency Testing for Colisure," Montana State University, Bozeman, MT, September 29, 1992.

"National Primary Drinking Water Regulations," 40 CFR Part 141, Subpart C, Appendix C, 1994.

"The Determination of Inorganic Anions in Water by Ion Chromatography," EPA 600/4-84-017, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, August 1991.

Environmental Measurements Laboratory (EML) Procedures Manual, HASL-300, Vol. 1, U.S. Department of Energy, 27th Edition, 1990, New York, N.Y.

Radiochemistry Procedures Manual, Eastern Environmental Radiation Facility (EERF) EPA-Montgomery, EPA 520/5-84/006, Montgomery, AL., August 1984.

Radiochemical Analytical Procedures for Analysis of Environmental Samples, EPA, Environmental Monitoring and Support Laboratory (EMSL). EMSL-LV0539-17, Las Vegas, NV., March 1979.

"Test Methods for Escherichia coli in Drinking Water, EC Medium with Mug Tube Procedure, Nutrient Agar with Mug Membrane Filter Procedure," EPA 600/4-91/016, EPA, Environmental Monitoring Systems Laboratory, Cincinnati, Ohio, July 1991.

13. **Was this rule previously adopted as an emergency rule?**
No

14. **The full text of the rules follows:**

TITLE 9. HEALTH SERVICES

CHAPTER 14. DEPARTMENT OF HEALTH SERVICES LABORATORIES

ARTICLE 6. LICENSING OF ENVIRONMENTAL LABORATORIES

Section
R9-14-601. Definitions
R9-14-602. License Applicability ~~and transition~~
R9-14-603. Initial Licensure Process
~~R9-14-604.~~ ~~Provisional license~~ Licensure Renewal Process
~~R9-14-604.~~ R9-14-605. Provisional Licensure
~~R9-14-605.~~ R9-14-606. Licensure Fees
~~R9-14-606.~~ R9-14-607. ~~Performance~~ Proficiency Evaluation
~~R9-14-607.~~ R9-14-608. Approved Methods and References
~~R9-14-608.~~ R9-14-609. Drinking Water Sample Matrix
~~R9-14-609.~~ R9-14-610. Wastewater Sample Matrix
~~R9-14-610.~~ R9-14-611. Solid, Liquid, and Hazardous Waste Sample Matrix
~~R9-14-611.~~ R9-14-612. Air Sample Matrix
~~R9-14-612.~~ R9-14-613. Quality Assurance
~~R9-14-613.~~ R9-14-614. Operation
~~R9-14-614.~~ R9-14-615. Laboratory Records and Reports
~~R9-14-615.~~ R9-14-616. Laboratory Safety
~~R9-14-616.~~ R9-14-617. Mobile Laboratories
~~R9-14-617.~~ R9-14-618. Out-of-State Environmental Laboratory Licensure

R9-14-601. Definitions
Words and phrases defined in A.R.S. §§ 36-495 have the same meaning when used in these rules. In this Article, unless ~~the context~~ otherwise ~~requires~~ specified:
1. "ADEQ" means the Department of Environmental Quality.
2. "Approved method" means an analytical test method which ~~has been~~ is ~~required by law or is~~ recognized by the Department as acceptable ~~for a specific usage~~ to test for the presence of the particular contaminant.

3. "Arizona Permit System for Aquifer Protection" means the permit system specified in A.R.S. §§ 49-241 through 49-251.
4. "Arizona Permit System for Reuse of Wastewater" means the permit system specified in A.R.S. §§ 49-104 and 49-250.
5. "Blind proficiency evaluation audit" means that the Department submits a series of ~~performance~~ proficiency evaluation samples ~~submitted~~ to ~~the~~ a laboratory in such a manner that the laboratory is unaware that it is testing a ~~performance~~ proficiency evaluation sample.
6. "Categories" of laboratory testing means drinking water, wastewater, hazardous waste, or air.
~~6~~ 7. "Clean Air Act" means 42 U.S.C.A. §§ 7401-7642.
~~7~~ 8. "Clean Water Act" means 33 U.S.C.A. §§ 1251-1376.
~~8.~~ ~~"Combination" means the approved method licensure fee for any combination of methods listed in that paragraph.~~
9. "Comprehensive Environmental Response, Compensation and Liability Act" means 42 U.S.C.A. §§ 9601-9657, commonly referred to as the Superfund Act.
10. "Contiguous grounds" means real property which can be enclosed by a single unbroken boundary line which does not enclose property owned or leased by others.
11. "Effluent" means an outflow, as of a stream which flows out of a facility.
~~10~~ 12."Environmental water laboratory" means a laboratory that holds a valid license issued by the Department prior to the effective date of this Article.
~~11~~ 13."EPA" means the United States Environmental Protection Agency.
~~12~~ 14."Federal Insecticide Fungicide and Rodenticide Act" means 7 U.S.C.A. §§ 136-136y.
~~13~~ 15."Intercomparison studies" means the ~~performance~~ proficiency evaluation service for radiochemical samples established by EPA's Environmental Monitoring Systems Laboratory.
~~14~~ 16."Licensure" means the approval by the Department of a laboratory to perform compliance testing for environmental monitoring programs, categories of laboratory testing, parameters of laboratory testing and approved methods of laboratory testing as defined in A.R.S. § 36-495.03 ~~et seq.~~ through A.R.S. § 36-495.16 and this Article.
~~15~~ 17."Parameter" means 1 of a set of chemical, physical, radiochemical, microbiological, or biological properties whose value determine the characteristics of an environmental sample.
~~16~~ 18."~~Performance~~ Proficiency evaluation audit" means an audit conducted by a service on a series of samples submitted to a laboratory for use in evaluating the laboratory's ability to correctly analyze compliance testing samples ~~using approved methods~~.
~~17~~ 19."~~Performance~~ Proficiency evaluation service" means the Department, EPA, or an independent service acceptable to the Department ~~who~~ which provides ~~performance~~ proficiency evaluation audit ~~materials~~ samples and evaluates the ~~correctness~~ results of the ~~performance~~ proficiency evaluation audit ~~results~~.
~~18~~ 20."Principal State Laboratory System" means the system which includes the Department, Division of State Laboratory Services, and the Radiation Regulatory Agency Laboratory, which are certified by EPA.
~~19~~ 21."Radiation assessment ~~performance~~ proficiency evaluation audit" means any ~~performance~~ proficiency evaluation ~~service or performance evaluation~~ audit required by EPA under the Safe Drinking Water Act for radiochemistry testing.
~~20~~ 22."Resource Conservation and Recovery Act" means 42 U.S.C.A. §§ 6921-6939B.
~~21~~ 23."Safe Drinking Water Act" means 42 U.S.C.A. §§ 300f-300j-11.
~~22~~ 24."Single Method" means the approved method licensure fee for any single method listed in that Section.
~~23. "Toxic Substances Control Act" means 42 U.S.C.A. §§ 2601-2654.~~
~~24~~ 25."U.S.C.A." means United States Code Annotated.
~~25. "Underground Storage Tank Regulation" means A.R.S. §§ 49-1001 through 49-1014.~~
~~27~~ 26."Water pollution ~~performance~~ proficiency evaluation audit ~~program~~" means any ~~performance~~ proficiency evaluation ~~service or performance evaluation~~ audit established by the EPA under the Clean Water Act.
~~28. "Water Quality Assurance Revolving Fund" means A.R.S. §§ 49-282 through 49-287.~~
~~26~~ 27."Water supply study audit ~~program~~" means any ~~performance evaluation service or performance~~ proficiency evaluation audit required by the EPA under the Safe Drinking Water Act.

R9-14-602. License Applicability ~~and transition~~

A. This Article shall not apply to compliance testing of parameters as outlined in A.R.S §§ 36-495.02.A.3. ~~conducted outside of a laboratory so long as this testing uses an approved method or a method directed by ADEQ, and the testing is performed at the time of sample collection.~~
B. This Article shall not apply to laboratory compliance testing which is performed pursuant to ~~the Toxic Substances Control Act and~~ the Federal Insecticide Fungicide and Rodenticide Act.
~~C. An environmental laboratory which is not licensed at the effective date of this Article may be deemed to be in compliance with this Article and A.R.S. Title 36, Chapter 4.3, Article 1, if the environmental laboratory owner or laboratory director submits to the Department, within 120 calendar days from the effective date of this Article, a completed application for licensure and all applicable licensure fees, and the laboratory meets the standards set forth in this Article.~~
~~D. An environmental water laboratory which has been issued a current license by the Department prior to the effective date of this Article shall be deemed to be in compliance with this Article and A.R.S. Title 36, Chapter 4.3, Article 1, if the environmental laboratory owner or laboratory director submits to the Department, within 30 calendar days from the effective date of this Article, a completed application for licensure and all applicable licensure fees.~~
~~E. Subsections C and D of this section shall apply to a laboratory until either of the following occurs:~~
~~1.The laboratory owner or operator is issued an environmental laboratory license pursuant to this Article, or~~
~~2.The laboratory owner or operator is denied an environmental laboratory license.~~
~~F. A person who has an application for an environmental water laboratory license pending on the effective date of this Article shall be issued an environmental laboratory license upon the payment of fees and compliance with the requirements of A.R.S. Title 36 Chapter 4.3 and this Article.~~

R9-14-603. Initial Licensure Process

A. To obtain a license the laboratory shall file ~~an~~ a complete application on a form provided by the Department pursuant to A.R.S. § 36-495.03 (A) and (B), and submit payment of all applicable fees to the Department pursuant to ~~A.R.S. §§ 36-495.03 (A) and (B) and this Article~~ R9-14-606.
B. ~~Excluding mobile laboratories, multiple~~ Multiple laboratories located on contiguous grounds and under the same ownership may be licensed under a single license ~~provided that the real property on which the laboratories are located can be enclosed~~

~~by a single unbroken boundary line which does not enclose property owned or leased by others.~~

C. Multiple laboratories, including mobile laboratories, located on noncontiguous grounds and under the same ownership may be licensed independently or under a single license at the owner's discretion. If the laboratory chooses the single license option, each nonmobile laboratory shall be located within Arizona and each mobile laboratory shall maintain Arizona vehicle registration.

D. An application for licensure shall be made for any of the approved methods contained in ~~R9-14-607~~ R9-14-608 and ~~listed in~~ ~~R9-14-608~~ R9-14-609 through ~~R9-14-611~~ R9-14-612 for compliance testing required by ADEQ; the Clean Air Act; the Clean Water Act; the Comprehensive Environmental Response, Compensation and Liability Act; the Resource Conservation and Recovery Act; ~~or~~ the Safe Drinking Water Act; or the Toxic Substance Control Act.

E. The Department shall ~~notify the laboratory director of any deficiencies in~~ determine if the application is complete and mail notification to the applicant with a detailed list of deficiencies if incomplete ~~and payment of fees~~ within ~~15 working days~~ 3 weeks from ~~the~~ receipt of the application and fees. An application is not complete without payment of all applicable fees. ~~If~~ Upon receipt of a complete application, ~~the application is complete and proper fees are submitted,~~ the Department shall schedule a laboratory inspection, ~~or~~ proficiency evaluation audit, or both., no longer than 1 month later for an in-state lab and 2 months later for an out-of-state lab. The Department and applicant may mutually agree to extend the inspection date.

F. The Department may grant a temporary license for all sample matrices except drinking water, to an out of state laboratory, before an on-site inspection occurs, provided:
1. The laboratory has submitted a complete application,
2. The laboratory has provided successful proficiency evaluation results from current EPA studies or 3rd party proficiency evaluation audits, and
3. The laboratory has provided current certification information for comparable testing from another state certification program.

~~F~~ G. The Department shall provide the laboratory director with a written report of findings of compliance with A.R.S. Title 36, Chapter 4.3, Article 1 and this Article, within ~~30 working days~~ 6 weeks from the completion of any inspection, investigation or ~~performance~~ proficiency evaluation audit.

~~G~~ H. ~~During the first twelve months after the effective date of this Article, if a laboratory that cannot demonstrate compliance with A.R.S. §§ 36-495.01 through 36-495.08 and this Article, the laboratory shall have no more than three months from the date the laboratory receives written notification from the Department to correct deficiencies listed in the Department's inspection or investigation report.~~ If the laboratory is not in compliance:
1. Within 3 weeks from receipt of a report of noncompliance, the laboratory shall submit a written corrective action plan acceptable to the Department with corrective action and completion dates no longer than 4 months from the date the laboratory receives the written ~~notification~~ report of noncompliance. ~~After the first year from the effective date of this Article, a laboratory that cannot demonstrate compliance with this Article shall have no more than 15 working days from the date the laboratory receives written notification by the Department to submit a written plan to the Department to correct deficiencies listed in the inspection or investigation report. The written plan shall contain corrective action completion dates acceptable to the Department.~~
2. Within 6 weeks of receipt of the laboratory's plan of corrective action, the Department shall provide the laboratory with a written approval or disapproval.
3. If the laboratory's plan of corrective action is disapproved by the Department, the laboratory shall submit a new corrective action plan for the items which the Department has disapproved within 3 weeks from receipt of the Department's written disapproval.
4. Within 3 weeks of receipt of the laboratory's revised corrective action plan, the Department shall provide the laboratory with a written approval or disapproval of the revised plan.

I. The Department will send written notification of approval or denial of an application within 9 months for an in-state lab and 10 months for an out-of-state lab. Denials shall set forth the reasons for denial and all other information required under A.R.S. § 41-1076.

J. This Section shall apply to a laboratory not currently licensed in Arizona until either of the following occurs:
1. The laboratory owner or operator is issued a laboratory license pursuant to this Article, or
2. The laboratory owner or operator is notified of the Department's intent to deny a laboratory license.

K. Notification by the Department of issuance or denial of a license shall not exceed ~~180 working days~~ 9 months for in-state labs, and ~~200 working days~~ 10 months for out-of-state labs from the date that the Department determined that the application was complete. Completeness review is 3 weeks. The overall time frame is 9 months and 3 weeks for in-state labs and 10 months and 3 weeks for out-of-state labs.

L. For the purpose of computing time frames hereunder intermediate Saturdays, Sundays, and legal holidays shall be included in the computation. The last day of the time period will be included unless it is a Saturday, Sunday, or legal holiday.

R9-14-604. Licensure Renewal Process

A. At least 1 month prior to the expiration of its current license, a laboratory must submit to the Department, a complete application and payment of all applicable fees prescribed in R9-14-606.

B. The Department shall notify the laboratory director of any deficiency in the application and payment of fees within 3 weeks from the receipt of the application and fees. If the application is complete and proper fees are submitted, the Department shall renew a laboratory license, unless the director determines pursuant to A.R.S. § 36-495.09 that grounds exist to deny the license.

C. The Department may grant a temporary license to a laboratory with an existing laboratory license, if the laboratory is moving to a new location. The Department shall not grant the temporary license to such laboratories if the owner or director is also changed.

D. The Department may conduct a laboratory inspection or proficiency evaluation audit, or both, at any time during the licensure period.

E. The Department shall provide the laboratory director with a written report of findings within 6 weeks from the completion of any inspection, investigation, or proficiency evaluation audit.

F. A licensed laboratory that cannot demonstrate compliance with this Article, shall submit to the Department within 6 weeks from the date the laboratory receives the written report of findings, a written plan to correct deficiencies listed in the written report of findings with corrective action and completion dates acceptable to the Department.

~~G.~~ The Department shall provide the laboratory with a written response within 6 weeks ~~days upon~~ of receipt of the laboratory's plan of corrective action to the Department's written report of findings.

~~R9-14-604~~ R9-14-605. Provisional Licensure

A. The Department may issue a provisional license when its investigation, inspection, or proficiency evaluation audit identifies deficiencies, but the number and nature of deficiencies do not pose a risk to public health, safety, or the environment.

~~C.~~ **B.** The Department may issue a provisional license for any of the following reasons:

1. The laboratory does not adhere to the applicable references in R9-14-608 or the requirements for facilities, equipment, reagents, quality control practices, or approved methods appropriate to the sample matrix as listed in ~~R9-14-608~~ R9-14-609 through ~~R9-14-611~~ R9-14-612;
2. The laboratory fails to participate in a ~~performance~~ proficiency evaluation audit and submit results within the acceptance limits or the time frames established by the ~~performance~~ proficiency evaluation service;
3. Two ~~of any three~~ consecutive ~~performance~~ proficiency evaluation audit reports have the same parameter deemed outside acceptance limits ~~unsatisfactory or unacceptable~~ by a ~~performance~~ proficiency evaluation service; or
4. The laboratory fails to submit a written corrective action report to the Department within ~~15 working days~~ 6 weeks of the receipt of ~~performance~~ proficiency evaluation audit results that are deemed outside acceptable limits ~~unsatisfactory or unacceptable~~.

~~E~~ **C.** The Department shall issue an amended certified list of parameters for the provisional license.

D. The licensee shall return its ~~regular~~ license to the Department within 10 working days from the date of receipt of written notification that the Department ~~issues~~ issued a provisional license.

~~B~~ **E.** A provisional license shall be valid for a set period established by the Department, not to exceed the expiration date of the laboratory's suspended ~~regular~~ license.

~~D~~ **F.** A laboratory with a provisional license may ~~receive a regular~~ renew its license provided that it applies for renewal ~~a regular license~~ at least ~~30 working days~~ 6 weeks prior to the expiration of its provisional license. ~~and provided that the laboratory demonstrates to the Department that the deficiencies which produced the suspension of the regular license have been corrected.~~ At such time, the Department shall issue to the laboratory a renewed license, unless the director determines pursuant to A.R.S. § 36-495.09 that grounds exist to revoke the license.

~~R9-14-605~~ R9-14-606. Licensure Fees

A. Each laboratory applying for a license shall pay to the Department, at the time of application, a nonrefundable application fee except as required by A.R.S. § 41-1077, in U.S. dollars, dependent upon the following laboratory license classifications:

1. ~~Limited~~ Level I - A license for compliance testing is limited to ~~the drinking water and wastewater matrix and testing parameters are limited to no more than microbiology, pH, biochemical oxygen demand, turbidity, chlorine, and residues.~~ 1 to 9 total parameters in any combination of categories of laboratory testing. ~~$1,087.00~~ $1,000.00
2. Level ~~I~~ II - A license for compliance testing is limited to ~~the drinking water and wastewater matrix and testing parameters are limited to no more than microbiology, pH, biochemical oxygen demand, turbidity, chlorine, residuals, and up to five additional approved testing methods~~ 10 to 17 total parameters in any combination of categories of laboratory testing. ~~$1,359.00~~ $1,270.00
3. Level ~~II~~ III - A license for compliance testing ~~is unlimited by matrix and compliance testing methods matrix~~ for greater than 17 total parameters in any combination of categories of laboratory testing. ~~$1,495.00~~ $1,400.00

B. Multiple laboratories applying under the single license option shall pay to the Department, at the time of application, a nonrefundable application fee, except as required by A.R.S. § 41-1077, for each noncontiguous laboratory, as outlined in R9-14-603, dependent upon the following laboratory license classifications:

1. ~~Limited~~ Level I ~~$952.00~~ $860.00
2. Level ~~I~~ II -~~$1,223.00~~ $1,130.00
3. Level ~~II~~ III -~~$1,359.00~~ $1,270.00

~~C. One year after the effective date of this Article, a laboratory that seeks to renew an existing regular license shall pay a nonrefundable application fee dependent upon the laboratory classifications of subsections A. and B. of this section minus $90.00.~~

~~D~~ **C.** ~~In addition to~~ Concurrently with the licensure application fee, the applicant shall pay ~~to the Department~~ a nonrefundable fee, except as required by A.R.S. § 41-1077, for ~~the~~ licensure of approved methods and associated instrumentation ~~for which the laboratory seeks licensure. The Department shall calculate and collect the fee prior to the issuance of a license for the approved methods and associated instrumentation~~ calculated by the Department as follows:

1. Microbiology Testing Fees	
a) Total coliform:	
Most Probable Number	$136.00
Membrane filtration	136.00
MMO-MUG (Colilert or Colisure only)	91.00
Presence-Absence	136.00
b) Fecal coliform:	
Most Probable Number	136.00
Membrane filtration	136.00
c) Fecal streptococcus:	
Most Probable Number	136.00
Membrane filtration	136.00
Salmonella	136.00
Heterotrophic plate count	91.00
Any 1 approved method in each group for total coliform, fecal coliform, fecal streptococcus, Salmonella and heterotrophic plate count.	$408.00
Any combination of approved methods for total coliform, fecal coliform, fecal streptococcus, Salmonella and heterotrophic plate count.	$725.00
Viruses	227.00
Parasites	227.00
2. Bioassay	
Any combination of methods for estimating the chronic and acute toxicity of effluents and waters to fresh waterorganisms.	$544.00
3. Demand	
Biochemical Oxygen Demand	$91.00
Chemical Oxygen Demand	$91.00
4. Inorganic Chemistry - Metals	
a) Flame atomic absorption (FAA) approved methods.	
Each metal for which the laboratory applies using any single FAA approved method from any single approved method reference.	$15.00 each, up to a maximum of $295.00
Each metal for which the laboratory applies using any to a combination of FAA approved methods from any combination of approved method references.	$24.00 each, up maximum of $468.00
b) Electrothermal graphite furnace atomic absorption (GFAA) approved methods.	
Each metal for which the laboratory applies using any single GFAA approved method from any single approved method reference.	$15.00 each, up to a maximum of $272.00
Each metal for which the laboratory applies using any combination of GFAA approved methods from any combination of approved method references.	$24.00 each, up to a maximum of $435.00
c) Inductively Coupled Plasma (ICP) emission spectrometer approved methods.	
Each metal for which the laboratory applies using any single ICP approved method from any single approved method reference.	$12.00 each, up to a maximum of $260.00
Each metal for which the laboratory applies using any combination of ICP approved methods from any combination of approved method references.	$18.00 each, up to a maximum of $390.00
d) Inductively Coupled Plasma/Mass Spectrometer (ICP/MS) approved methods.	
Each metal for which the laboratory applies using any ICP/MS approved method from any approved method reference.	$18.00 each, up to a maximum of $390.00
e) Colorimetric metal testing approved methods.	
Each colorimetric approved method for which the	$45.00

laboratory applies.	
f) Mercury cold vapor approved methods.	
Any single mercury cold vapor approved method from any single approved method reference for which the laboratory applies.	$91.00
Any combination of mercury cold vapor approved methods from any combination of approved method references for which the laboratory applies.	$136.00
g) Metals by hydride generation approved methods.	
Each ~~All~~ hydride metals for any ~~single~~ approved method from any ~~single~~ approved method reference for which the laboratory applies.	$45.00 each, up to a maximum of $68.00
~~Any combination of metals by hydride generation approved methods from any combination of approved method references for which the laboratory applies.~~	~~$68.00~~
5. Inorganic Chemistry - Nonmetals	
a) Nonmetals Group IA	
Total Alkalinity	$23.00
Chloride	23.00
Chlorine	23.00
Chlorine dioxide	23.00
Color	23.00
Hardness (as CaCO3)	23.00
Hydrogen ion (pH)	23.00
Ozone	23.00
Specific conductance	23.00
Total Dissolved Solids (Filterable Residue)	23.00
Turbidity	23.00
b) Nonmetals Group IB	
Nitrate	$45.00
Sulfate	45.00
Fluoride	45.00
Sodium Azide	45.00
Sodium/Potassium Perchlorate	45.00
c) Maximum for any combination of Nonmetals Group IA and IB for the 1st approved method for which the laboratory applies.	$255.00
d) Each additional Nonmetals Group IA approved method for which the laboratory applies.	$11.00
e) Each additional Nonmetals Group IB approved method for which the laboratory applies.	$23.00
f) Nonmetals Group IIA	
Acidity	$23.00
Total Hardness	23.00
Surfactants	23.00
Total Residue	23.00
Nonfilterable Residue	23.00
Settleable Residue	23.00
Volatile Residue	23.00
g) Nonmetals Group IIB	
Ammonia	$45.00
Bromide	45.00
Total Kjeldahl Nitrogen	45.00
Nitrite	45.00
Orthophosphate	45.00
Total Phosphorus	45.00
h) Maximum for any combination of Nonmetals Group IIA and IIB for the 1st approved method for which the laboratory applies.	$340.00
i) Each additional Nonmetals Group IIA approved method for which the laboratory applies.	$11.00
j) Each additional Nonmetals Group IIB approved method for which the laboratory applies.	$23.00
k) Ion chromatograph approved methods.	
Each ion for which the laboratory applies using any IC approved method from any approved method reference.	$20.00 each, up to a maximum of $200.00

6. Major Analytical Chemistry Instruments	
Each Gas Chromatograph (GC) instrument.	$45.00
Each Gas Chromatograph/Mass Spectrometer (GC/MS) instrument.	$91.00
Each Atomic Absorption Spectrometer instrument.	$45.00
Each Inductively Coupled Plasma Atomic Emission Spectrometer instrument.	$45.00
Each Inductively Coupled Plasma Atomic Emission Spectrometer/Mass Spectrometer Instrument.	$91.00
Each High Performance Liquid Chromatograph instrument.	$45.00
Each High Performance Liquid Chromatograph/ Mass Spectrometer instrument.	$91.00
Each Ion Chromatograph instrument.	$45.00
Each Total Organic Halide (TOX) instrument.	$45.00
Each Transmission Electron Microscope (TEM).	$182.00

7. Volatile Organic Chemistry	Single Method	Combination
Purgeable organic GC and GC/MS approved methods.	$91.00	~~$91.00~~ $136.00
Volatile Organics by GC by EPA Methods ~~502.1,~~ 502.2, ~~503.1~~ 8021A	45.00	68.00
Purgeable Halocarbons by EPA Methods 601 and ~~8010~~ 8010B	45.00	91.00
Total Trihalomethanes (TTHM) 502.2, 524.2, 551	45.00	510.1
Maximum Trihalomethane Potential (MTP)	45.00	91.00
Purgeable Aromatics by EPA Methods 602, ~~8015~~ 8015A, 8015M, ~~8020~~ 8020A	45.00	
Fuel Class Hydrocarbons by BLS Method 191	~~45.00~~	~~68.00~~
~~Purgeable Halocarbons by EPA Methods 501.1, 501.2, 510.1, Standard Method 6232 B and D~~		91.00
Halogenated and Aromatic Volatiles by EPA Method ~~8021~~ 8021A	45.00	68.00
Acrolein, Acrylonitrile, Acetonitrile by EPA Methods 603, ~~8030~~, 8031, 8032, 8033, 8316	91.00	181.00
Purgeables by GC/MS by EPA Methods~~5-24.1,~~ 524.2, 624, 1624, ~~8240, 8260~~ 8260A		

8. Semivolatile Organic Chemistry	Single method	Combination
Semivolatile organic GC approved methods	$69.00	
Aniline and Derivatives by EPA Method 8131	45.00	
Benzidines by EPA Method 605	69.00	
Benzidines and Nitrogen Pesticides by EPA 553	69.00	
Bis(2-chloroethyl)ether Hydrolysis Products by EPA 8430	69.00	102.00
Carbamates/Urea Pesticides by EPA Methods 531.1, 632, 8318	69.00	
Carbonyl Compounds by EPA 8315	69.00	102.00
Chlorinated Herbicides by EPA Methods ~~515.1,~~ 515.2, 555, ~~8150,~~ 8151, Standard Methods 6640-B, ASTM D-3478-85	69.00	102.00
Chlorinated Hydrocarbons by EPA Methods 612, ~~8120~~, 8121	69.00	102.00
1,2-Dibromoethane and 1,2-Dibromo-3-Chloropropane by EPA Methods ~~504,~~ 504.1, 551, 8011, BLS Method 127	69.00	
Diquat and Paraquat by EPA Method 549.1	69.00	
Endothall by EPA Method 548.1	69.00	102.00
Glyphosate by EPA Method 547, 6651	69.00	102.00
Haloacetic Acetic Acids by EPA Method 552 and 552.1	69.00	102.00
Haloethers by EPA Methods 611, ~~8110~~, 8111	69.00	102.00
Nitroaromatics and Cyclic Ketones by EPA Methods 609, ~~8090~~, 8091, 8330	69.00	
Nitroglycerine by EPA 8332	91.00	136.00
Nitrosamines by EPA Methods 607, 8070, 8330	91.00	136.00
Nonvolatiles by HPLC/MS by EPA 8321, 8325	69.00	102.00
Organochlorine Pesticides/Polychlorinated Biphenyls by EPA Methods 505, 508, 508.1, 608, ~~8080,~~ 8081, 8082 Standard Method 6630C, ASTM Method D3086-85, EPA-600/4-81-045	69.00	102.00
Organophosphorus and Nitrogen Pesticides by EPA Methods 507, 614, ~~8140, 8141~~ 8141A	69.00	102.00
Phenols by EPA Methods 604, ~~8040~~, 8041A	69.00	102.00
Polynuclear Aromatic Hydrocarbons by EPA Methods 550, 550.1, 610, 8100, 8310	69.00	
Polynuclear Aromatic Hydrocarbons by EPA Method 8310	69.00	102.00
Phthalate Esters by EPA Methods, 606, ~~8060,~~ 8061, 506	91.00	182.00
Semivolatile organic GC/MS approved methods by EPA Methods ~~525,~~525.2, 625, 1625, ~~8250, 8270~~ 8270B	69.00	
Semivolatile organics GC/FT-IR by EPA 8410		

Tetrazine by EPA 8331	69.00	
Triazine Pesticides by EPA Method 619	69.00	
Dioxin and Furans by EPA Methods 1613, 613, 8280, 8290	272.00	362.00
Director approved GC methods	69.00	
Director approved GC/MS methods	91.00	

9. Radiochemicals	$270.00
Fee for radiochemistry testing	45.00
Each radioisotope counting instrument	91.00
Gross Alpha Activity	91.00
Gross Beta Activity	91.00
Radium-226	91.00
Radium-228	91.00
Cesium-134	91.00
Iodine-131	91.00
Polonium-210	91.00
Radon-222	91.00
Strontium-89	91.00
Strontium-90	91.00
Tritium	91.00
Uranium	91.00
Photon Emitters, each method	$73.00
Each radiochemical approved method when the laboratory applies for 5 or more.	

10. Hazardous Characteristic Testing Approved Methods	$38.00
Corrosivity toward steel	38.00
Ignitability	38.00
Reactivity	91.00
Extraction Procedure Toxicity Characteristic*	181.00
Toxicity Characteristic Leaching Procedure*	181.00
Synthetic Characteristic Leaching Procedure*	
* (The fee for these procedures are for the sample extraction and leaching processes only.)	

11. Miscellaneous Compliance Testing	$45.00
Total Organic Carbon	45.00
Total Organic Halides	68.00
Purgeable Organic Halides	68.00
Extractable Organic Halides	91.00
Ethylene Glycol	91.00
Total Petroleum Hydrocarbon	45.00
Oil and Grease	91.00
Cyanide; total, direct and amenable to chlorination	91.00
Total Phenols	~~23.00~~
~~Calcium~~	23.00
Lead in paint	23.00
Magnesium - gravimetric	45.00
Sulfide	45.00
Sulfite	45.00
Silica	136.00
Bulk Asbestos Identification	69.00
White Phosphorous	45.00
Immunoassay Tests (each)	20.00
Compatability Test for Wastes and Membrane Liners	20.00
Cation-Exchange Capacity of Soil	20.00
Director approved methods	
Asbestos fiber counting by:	136.00
Light microscopy	227.00
Electron microscopy	300.00
Electron Microscopy with X-Ray Diffraction	

12. Ambient Air Compliance Testing Approved Methods	$181.00
Carbon Monoxide	181.00
Hydrocarbons	181.00
Lead	181.00
Nitrogen Dioxide	181.00
Ozone	

Particulate Matter	181.00
Sulfur Oxides	181.00
Maximum for ambient air testing.	952.00

13. Air - Stationary Sources and Stack Testing Approved Methods

Carbon Dioxide/Oxygen/Excess Air	$181.00
Carbon Monoxide	181.00
Carbonyl Sulfide/Carbon Dioxide	181.00
Fluoride	181.00
Gaseous Organic Compounds	181.00
Hydrogen Sulfide	181.00
Inorganic Lead	181.00
Moisture Content	181.00
Nitrogen Oxide	181.00
Particulate Emissions:	
Asphalt Processing	91.00
Fiberglass Insulation	91.00
Nonsulfate	91.00
Nonsulfuric Acid	91.00
Pressure Filters	91.00
Stationary Sources	91.00
Sulfur Dioxide	91.00
Wood Heaters	91.00
Particulate emissions maximum.	544.00
Sulfur and Total Reduced Sulfur	181.00
Sulfur Dioxide	181.00
Sulfuric Acid Mist	181.00
Volatile Matter/Density/Solids/Water	181.00
Vapor Tightness - Gasoline Delivery Tank	181.00
Volatile Organic Compounds	181.00
Wood Heaters Certification and Burn Rates	181.00
Stationary Sources and Stack Testing maximum.	2,720.00

14. Arizona Emission Test Approved Methods

Particulate Emissions:	
Sulfuric Acid Mist/ Sulfur Oxides	$181.00
Dry Matter	181.00

15. Hazardous Air Pollutant Approved Methods For National Emission StandardS

Arsenic	$181.00
Beryllium	181.00
Mercury	181.00
Polonium-210	181.00
Vinyl Chloride	181.00
Maximum for hazardous air pollutants	680.00

~~E~~ D. The laboratory shall ~~submit to the Department~~ pay a nonrefundable, except as required by A.R.S. §41-1077, handling fee of $78.00 for each proficiency evaluation audit and the actual cost for proficiency evaluation audit materials, if applicable.

~~F~~ E. Except for the appointment of an acting laboratory director, a change in the laboratory name, directorship, or ownership ~~or appointment of an acting laboratory director~~, a laboratory which requests ~~the Department to amend or modify~~ an amendment or modification to its license before ~~the license's~~ its expiration date, shall pay all applicable licensure fees ~~and the actual expense incurred by the Department for such amendment or modification~~. Laboratories shall have 3 free modifications to delete parameters during a licensure period. Thereafter, each additional deletion shall be charged at a rate of $10.00 per parameter for processing.

~~G. An environmental laboratory which has been issued a license prior to the effective date of this Article with at least 90 calendar days remaining until the expiration of the license and which does not apply for any additional testing methods or parameters beyond its existing license shall pay prorated fees. The prorated fees shall be calculated by the following equation:~~

~~Total All Fees x Calendar Days Remaining On License = Prorated Fee~~

~~365~~

F. Each out-of-state licensed laboratory shall pay an annual fee of $75.00 if the laboratory chooses to receive technical updates from the Department by FAX.

~~R9-14-606~~ R9-14-607. ~~Performance~~ Proficiency Evaluation

A. Each laboratory shall demonstrate proficiency as determined by the Department ~~the proficiency evaluation service~~ through ~~performance~~ proficiency evaluation audits provided by the Principal State Laboratory System, if available, or a ~~performance~~ proficiency evaluation ~~audit~~ service provider approved by the Department. The laboratory shall analyze and report ~~performance~~ proficiency evaluation audit samples for the testing program, category of testing, parameter, and approved methods for which an initial license or renewal license has been requested. ~~Performance~~ Proficiency evaluation parameters reported by the laboratory for subsections ~~B.~~ (B) through

~~G.~~ (G) of this Section shall be within acceptance limits established by the ~~performance~~ proficiency evaluation service or in addition for subsection (B) as required by 40 CFR §§ 141.24, f.17.

B. To maintain licensure for the approved methods listed for chemistry in ~~R9-14-608~~ R9-14- 609, the laboratory shall ~~analyze and report results for~~ demonstrate continued proficiency through audits provided by the EPA's water supply study (WS) audit program, ~~and~~ the Principal State Laboratory System ~~performance~~ proficiency evaluation audit program, if available, or a proficiency evaluation service accepted by the Department.

C. To maintain licensure for the approved methods listed for chemistry in ~~R9-14-609~~ R9-14-610 and ~~R9-14-610~~ R9-14-611, the laboratory shall ~~analyze and report results for~~ demonstrate continued proficiency through audits provided by the EPA's water pollution (WP) ~~performance~~ proficiency evaluation audit program, ~~and~~ the Principal State Laboratory System ~~performance~~ proficiency evaluation audit program, if available, or a proficiency evaluation service accepted by the Department.

D. To maintain licensure for the approved methods listed for microbiology in ~~R9-14-608~~ R9-14-609 through ~~R9-14-610~~ R9-14-611, the laboratory shall ~~analyze and report results for~~ demonstrate continued proficiency through audits provided by the EPA's ~~performance~~ proficiency evaluation audit program, ~~or~~ the Principal State Laboratory System ~~performance~~ proficiency evaluation audit program, if available, or a proficiency evaluation service accepted by the Department.

E. To maintain licensure for the approved methods listed for radiochemicals in ~~R9-14-608~~ R9-14-609 through ~~R9-14-611~~ R9-14-611, the laboratory shall ~~analyze and report results for~~ demonstrate continued proficiency through audits provided by the EPA's radiation assessment ~~performance~~ proficiency evaluation audit and the Intercomparison studies audit programs.

F. To maintain licensure for the approved methods listed in ~~R9-14-611~~ R9-14-612, the laboratory shall ~~analyze and report results for the Principal State Laboratory System performance evaluation audit or~~ demonstrate continued proficiency through audits provided by the EPA ~~performance~~ proficiency evaluation audit program, the Principal State Laboratory System proficiency evaluation audit program, if available, or from a proficiency evaluation service accepted by the Department.

G. The Department may submit blind audit samples to a licensed laboratory.

H. The laboratory shall test all ~~performance~~ proficiency evaluation audit samples within holding times required by the approved method for each of the audit parameters and report the results to the ~~Department~~ proficiency evaluation service. Principal State Laboratory System chemistry ~~performance~~ proficiency evaluation audit sample results shall be reported to the Department within ~~60 calendar days~~ 2 months from the time of receipt. Principal State Laboratory System microbiology ~~performance~~ proficiency evaluation audit sample results shall be reported to the Department within ~~14 calendar days~~ 2 weeks from the time of receipt.

I. The Department shall issue a report of Principal State Laboratory System ~~performance~~ proficiency evaluation audit findings to the laboratory within ~~45 working days~~ 2 months of the deadline date for results of the ~~performance~~ proficiency evaluation audit.

~~R9-14-607~~ R9-14-608. Approved Methods and References

A. ~~All compliance samples shall be tested by approved methods listed in R9-14-608 through R9-14-611 as appropriate to the sample matrix, or as specifically required by ADEQ or EPA.~~ All compliance samples shall be tested by approved methods and the results shall be validated by reference to the applicable quality assurance requirements listed in the following Key References; or in R9-14-609 through R9-14-612 as appropriate to the sample matrix, ~~or~~ and/or as specifically required by ADEQ or EPA.

B. ~~If approved methods are not available for a particular testing program, category of testing, parameter, needed for compliance purposes, recommended or locally developed procedures may be used if these procedures have been reviewed and approved by the Director based upon the criteria in this section. Any person may submit a petition to the Department requesting approval of an analytical method. Petitions to approve analytical method shall contain:~~

~~1. Name, telephone number, and address of the person submitting the petition;~~

~~2. Identification of the pollutant or parameter for which approval of an analytical method is being requested;~~

~~3. Written justification for using the proposed analytical method including a detailed description of the proposed analytical method, together with references to published or other studies confirming the general applicability of the proposed analytical method to the type of sample matrix for which its use in intended; and~~

~~4. Data which demonstrates the performance of the proposed analytical method in terms of accuracy, precision, reliability, ruggedness, ease of use and ability to achieve a detection limit appropriate for the methods proposed use.~~

~~C. A proposed analytical method will be approved when the Department determines that the criteria listed in subsection (B)(4) of this Section have been demonstrated.~~

If approved methods are not available for a particular testing program, category of testing, or parameter, and different methods are required by EPA or ADEQ, a lab may use another method if the method is approved by the Director.

1. For existing methods which are not approved methods under this Article, a laboratory may submit a petition to the Department requesting approval. The petition shall include reference to the EPA or ADEQ statute or rule which requires the use of the different method.

2. A laboratory may submit a petition to the Department requesting the approval of a recommended or locally developed procedure.

   a) The petition shall contain:

      i) Name, telephone number, and address of the person submitting the petition;

      ii) Identification of the pollutant or parameter for which approval of a recommended or locally developed procedure is being requested;

      iii) Written justification for using the recommended or locally developed procedure including a detailed description of the recommended or locally developed procedure, together with references to published or other studies confirming the general applicability of the recommended or locally developed procedure to the type of sample matrix for which its use ~~in~~ is intended, and reference to the EPA or ADEQ requirement to use a recommended or locally developed procedure; and

      iv) Data which demonstrates the performance of the recommended or locally developed procedure in terms of accuracy, precision, reliability, ruggedness, ease of use and ability to achieve a detection limit appropriate for the proposed use of the method.

b) The Department may approve a recommended or locally developed procedure if it determines that the criteria listed in R9-14-608(2)(a)(iv) have been demonstrated.

c) The Department may require that the recommended or locally developed procedure be tested in parallel with a reference laboratory for precision and accuracy.

~~D~~ C. The following references identified by a capital letter under the heading "Key" contain the approved methods which are listed by parameter in ~~R9-14-608~~ R9-14-609 through ~~R9-14-611~~ R9-14-612. ~~and~~ The following approved methods are incorporated by reference and on file with the Office of the Secretary of State and ~~with~~ the Department. ~~The "KEY" references do not include any future editions.~~ This incorporation by reference contains no future editions or amendments.

Key Reference

A "Methods for Chemical Analysis of Water and Wastes," EPA 600/4-79-020, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, revised March 1983.

A1 "Methods for the Determination of Metals in Environmental Samples-Supplement 1", EPA 600/R-94-111, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, May 1994.

A2 "Methods for the Determination of Inorganic Substances in Environmental Samples", EPA-600/R-93-100, August 1993.

B "Interim Radiochemical Methodology for Drinking Water," EPA 600/4-75-008, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, revised March, 1976.

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~~M "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms," EPA/600/4-85/013, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, March, 1985.~~

N "Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, EPA 600/4-89-001 and EPA 600/4-89-001a, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, 1989.

O "National Primary and Secondary Ambient Air Quality Standards," 40 CFR Part 50, Subchapter C, ~~1990~~ 1995.

P "USEPA Manual of Methods for Virology," EPA 600/4-84/013, EPA, Environmental Monitoring and

Support Laboratory, Cincinnati, Ohio, February 1984.

Q "Standards of Performance For New Stationary Sources, Appendix A -Test Methods," 40 CFR Part 60, Appendix A, ~~1990~~ 1995.

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~~T Edberg, S. C., et al., "National Field Evaluation of a Defined Substrate Method for the Simultaneous Detection of Total Coliforms and Escherichia coli from Drinking Water: Comparison with Presence-Absence Techniques," Applied and Environmental Microbiology, Vol. 55, No. 4, April, 1989, pp. 1003-1008.~~

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U "National Primary Drinking Water Regulations," 40 CFR Part 141, Subpart C, Appendix C, ~~1990~~ 1994.

V "The Determination of Inorganic Anions in Water by Ion Chromatography," EPA 600/4- 84-017, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, ~~March,1984~~ August 1991.

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Y Radiochemical Analytical Procedures for Analysis of Environmental Samples, EPA, Environmental Monitoring and Support Laboratory (EMSL). EMSL-LV0539-17, Las Vegas, NV., March 1979.

Z "Test Methods for Escherichia coli in Drinking Water, EC Medium with Mug Tube Procedure, Nutrient Agar with Mug Membrane Filter Procedure, "EPA 600/4-91/016, EPA, Environmental Monitoring Systems Laboratory, Cincinnati, Ohio, July 1991.

~~R9-14-608~~ R9-14-609. Drinking Water Sample Matrix

Every laboratory which conducts compliance testing under this rule shall follow the guidelines in Key Reference D3, excluding laboratory personnel educational and experience requirements, and use the following approved methods, unless a method falls under the alternate specifications pursuant to R9-14-608(A) or (B). To locate the source of the approved method, cross reference the capital letter listed under "Key" to the reference designation listed in ~~R9-14-607~~ R9-14-608. When the identification and measurement of radio nuclides other than those listed in subsection (E)(1) through (11) of this Section is required, Key reference ~~"Z"~~ "X" or "Y" is to be used, except in cases where alternative methods have been requested or approved in accordance with ~~R9-14-607.A~~ R9-14-608(A) through ~~C~~ (C).

A. Microbiology:

	Key	Approved Method
1. Total Coliforms:		
Multiple Tube	C	9221B
Membrane Filter	C	9222B
~~Autoanalysis Colilert~~	~~T~~	~~Field Evaluation~~
Colilert (OMPG-MUG)	C	9223B
Colisure	T	Broadway et al.
Presence - Absence	C	~~9221E~~ 9221D
2. Heterotrophic Plate Count	C	9215B
3. Escherichia coli	Z	Tube Procedure Membrane Filter Procedure
4. Fecal coliform	C	~~9221C,~~ 9221E, 9222D

B. Sample preparation for metals:

	Key	Approved Method
1. Preliminary Filtration	C	3030B
2. Acid Extractable Metals	C	3030C
3. Acid Digestion:		
Nitric Acid	C	3030E
Nitric Acid/Hydrochloric Acid	C	3030F
Nitric Acid/Sulfuric Acid	C	3030G
Nitric Acid/Perchloric Acid	C	3030H
Nitric Acid/Perchloric Acid/Hydofluoric Acid	C	3030I
4. Dry Ashing	C	3030J
5. Microwave Assisted Digestion	C	3030K

C. Inorganic chemical and physical characteristics:

	Key	Approved Method
1. Alkalinity	A	~~310.1,~~ 310.2
	C	2320~~B~~
	I	~~D1067-88B~~ D1067-92B
2. Aluminum	A1	200.7, 200.8, 200.9
	C	3120B, 3113B, 3111D
	J	I-3051-85
3. Antimony	A1	200.8, 200.9

	C	3113B
	I	D3697-92
~~2~~ 4. Arsenic	~~A~~	~~200.7, 206.2, 206.3, 206.4, 206.5~~
	A1	200.7, 200.8, 200.9
	C	3113B, ~~3500-AsD,C,E~~ 3114B, 3120B
	I	~~D2972-88A, D2972-88B D2972-93B, D2972-93C~~
	J	~~I-1062-78~~ I-1062-85
~~3~~ 5. Barium	~~A~~	~~200.7, 208.1, 208.2~~
	A1	200.7, 200.8
	C	~~3111,~~ 3111D, 3113B, ~~3500-Ba B,C~~ 3120B
6. Beryllium	A1	200.7, 200.8, 200.9
	C	3113B, 3120B
	I	D3645-93B
4 7. Cadmium	~~A~~	~~200.7, 213.1, 213.2,~~
	A1	200.7, 200.8, 200.9
	C	~~3111~~, 3113B, ~~3500-Cd B,C~~
	~~I~~	~~D3557-90A, D3557-90B~~
~~5~~ 8. Calcium	~~A~~	~~200.7, 215.1, 215.2~~
	A1	200.7
	C	~~3111~~ 3111B, 3120B, 3500-Ca ~~B,C~~,D
	I	~~D1126-86, D511-88~~ D511-93 A,B
~~6~~ 9. Chloride	~~A~~	~~325.1, 325.2, 325.3~~
	A2	300.0
	C	4500-Cl ~~B,C,E,F~~ D
	~~V~~	~~300.0~~
~~7~~ 10. Chlorine, Total Residual	~~A~~ A2	330.1, 330.2, 330.3, 330.4, 330.5
	C	4500-Cl ~~B,C~~,D,E,F,G,H
11. Chlorine Dioxide	C	4500-ClO2 C,D,E
~~8~~ 12. Chromium, Total	~~A~~	~~200.7, 218.1, 218.2, 218.3~~
	A1	200.7, 200.8, 200.9
	C	~~3111,~~ 3113B, ~~3500-Cr B,C,~~ 3120, ~~3120B~~
	~~I~~	~~D1687-86B~~
~~9~~ 13. Color	~~A~~	~~110.3~~
	C	2120B,C,D
	J	I-1250-84
~~10~~ 14. Copper	~~A~~	~~200.7, 220.1, 220.2~~
	A1	200.7, 200.8, 200.9
	C	~~3111,~~ 3111B, 3113B, ~~3500-Cu B,C~~, 3120, ~~3120B~~
	I	D1688-90A, D1688-90C
~~11~~ 15. Corrosivity	C	2330B
16. Cyanide	A2	335.4
	C	4500-CN C,E,F
	I	D2036-91A
	I	I-3300-85
17. Cyanide, Amenable	C	4500-CN G
	I	D2036-91B
~~12~~ 18. Fluoride	~~A~~	~~340.1, 340.2, 340.3~~
	A2	300.0
	C	4500-F B,C,D,E, 4110B
	I	~~D1179-88A, D1179-88B~~ D1179-93B
~~13~~ 19. Hardness	~~A~~ A1	~~130.1, 130.2, Sum of 215.1 & 242.1 or~~ Sum of Ca and Mg by 200.7 as their carbonates.
	C	2340B, Sum of Ca & Mg by ICP as their carbonates.
~~14~~ 20. Iron	~~A~~	~~200.7, 236.1, 236.2~~

	A1	200.7, 200.9
	C	~~3111~~, 3111B, 3113B, ~~3500-Fe B,C~~, 3120B
~~15~~ 21. Lead	~~A~~	~~200.7, 239.1, 239.2~~
	A1	200.8, 200.9
	C	~~3111,~~ 3113B, ~~3500-Pb B,C~~ ~~3120B~~
	I	~~D3559-85A,~~ D3559-90D
~~16~~ 22. Magnesium	~~A~~	~~200.7, 242.1~~
	A1	200.7
	C	~~3111~~ 3111B, ~~3500-Mg B,C,~~ ~~3120D~~ 3120
~~17~~ 23. Manganese	~~A~~	~~200.7, 243.1, 243.2~~
	A1	200.7, 200.8, 200.9
	C	~~3111~~ 3111B, 3113B, ~~3500-Mn B,C,~~ 3120B
	I	D858-90A, D858-90C
~~18~~ 24. Methylene Blue Active Substances	~~A~~	~~425.1~~
	C	5540C
~~19~~ 25. Mercury	A	~~245.1,~~ 245.2
	A1	245.1, 200.8
	C	~~3500-Hg B~~ 3112B
	I	~~D3223-86,~~ D3223-91
26. Nickel	A1	200.7, 200.8, 200.9
	C	3111B, 3113B, 3120B
~~20~~ 27. ~~Nitrogen,~~ Nitrate	~~A~~ A2	~~352.1, 353.1,~~ 353.2, 300.0, ~~353.3~~
	C	4500-NO3 ~~C~~,D,E,F, 4110B
	I	D3867-90A, D3867-90B
	~~V~~	~~300.0~~
28. Nitrite	A2	353.2, 300.0
	C	4500-NO2 B,E,F, 4110B
	I	D3867-90A, D3867-90B
29. Ortho-Phosphate	A2	365.1, 300.0
	I	D-515-88A
	C	4500-P-E,F, 4110
	I	I-2601-85, I-2598-85
30. Ozone	C	4500-O3 B
~~21~~ 31. pH (Hydrogen Ion)	A	150.1, 150.2
	C	4500-H B
	I	~~D1293-84A,~~ D1293-84
~~22~~ 32. Residue, Filterable (TDS)	~~A~~	~~160.1~~
	C	2540C
	I	I-1750-84
~~23~~ 33. Temperature, Degrees Celsius	~~A~~	~~170.1~~
	C	2550B
~~24~~ 34. Turbidity, NTU: Nephelometric	A	180.1
	C	2130, ~~2130B~~
~~25~~ 35. Selenium	~~A~~	~~200.7, 270.2, 270.3~~
	A1	200.8, 200.9
	C	3113B, 3114B, ~~3500-Se C,H,I~~
	I	~~3859-88,~~ D3859-93A, D3859-93B
	J	~~I-1667-78~~ I-3667-85
36. Silica	A1	200.7
	C	4500-Si D,E,F, 3120B
	I	D859-88
	J	I-1700-85
~~26~~ 37. Silver	~~A~~	~~200.7, 272.1, 272.2~~
	A1	200.7, 200.8, 200.9
	C	~~3111,~~ 3111B, 3113B, ~~3500-Ag B,C~~, 3120B
	I	I-3720-85
~~28~~ 38. Sodium	~~A~~	~~200.7, 273.1, 273.2~~
	A1	200.7
	C	~~3111,~~ 3111B, ~~3500-Na B,C,D~~ 3120B, ~~D4191-82~~ D1428-82A

~~27~~ 39. Specific Conductance	~~A~~	~~120.1~~
	C	2510B
	I	~~D1125-82A~~ D1125-91A
	~~J~~	~~I-1780-84~~
~~29~~ 40. Strontium	~~A~~	~~200.7~~
	A1	200.7
	C	3500-Sr B,C,D
~~30~~ 41. Sulfate	A	375.2, ~~375.3, 375.4~~
	A2	300.0
	C	4110, 4500-SO4 ~~B~~,C,D,~~E~~,F
	I	D4327-91
	~~V~~	~~300.0~~
42. Thallium	A1	200.8, 200.9
~~31~~ 43. Zinc	~~A~~	~~200.7, 289.1, 289.2~~
	A1	200.7, 200.8
	C	~~3111,~~ 3111B, ~~3500-Zn B,C,~~ 3120B

D. Organic chemicals:	Key	Approved Method
1. Total Trihalomethanes	~~C~~	~~6232B,D~~
	~~U~~ D	~~501.1, 501.2, 510.0,~~ 502.2
	D1	551
	D2	524.2
2. Halogenated Volatiles	D	~~502.1,~~ 502.2
	D2	524.2
3. Aromatic Volatiles	D	502.2, ~~503.1~~
	D2	524.2
4. Chlorinated Pesticides	~~C~~	~~6630C~~
	D	505, 508, 508.1, 525.2
	~~I~~	~~D3086-85~~
5. Polychlorinated Biphenyls (PCBs)	D	505, 508, 508A
6. Chlorophenoxy Herbicides	C	6640B
	D	515.1
	D2	515.2, 555
	I	D3478-85
7. 1,2-Dibromoethane (EDB)	D	~~504~~, 504.1
	D1	551
	K	BLS-127
8. 1,2-Dibromo-3-Chloropropane (DBCP)	D	~~504~~, 504.1
	D1	551
	K	BLS-127
9. Nitrogen and Phosphorus Pesticides	D	507, 525.2
~~10. Volatile Organics~~	~~D~~	~~524.1, 524.2~~
~~11~~ 10. Base/Neutrals and Acids	D	~~525,~~ 525.2
~~12~~ 11. Carbamates	D	531.1
12. Dioxins and Furans	D5	1613
13. Glyphosate	D1	547
14. Endothall	D2	548.1
15. Diquat and Paraquat	D2	549.1
16. Polycyclic Aromatic Hydrocarbons	D	525.2
	D1	550, 550.1
17. DBPs And Chlorinated Solvents	D1	551
18. Haloacetic Acids	D1	552
	D2	552.1
19. Phthalate Esters and Adipates	D	525.2
	D1	506
20. Benzidines and Nitrogen Pesticides	D2	553
21. Carbonyl Compounds	D2	554
22. Chlorinated Acids	D2	555

E. Radiochemical:	Key	Approved Method
1. Gross Alpha	B	Gross Alpha
	C	7110B
	L	900
2. Gross Beta	B	Gross Beta

	C	7110B
	L	900
3. Total Radium	B	Total Radium
	C	7500-Ra B
	L	903
4. Radium-226	B	Radium-226
	C	7500-Ra B
	L	903.1
5. Radium-228	L	904
~~5~~ 6. Cesium-134	B	Cesium-134
	C	7500-Cs B
	L	901
~~6~~ 7. Iodine-131	B	Iodine-131
	C	7500-I B,C
	L	902
~~7~~ 8. Radon-222	L	Lucas Cell
~~8~~ 9. Strontium	B	Strontium
	C	7500-Sr B
	L	905
~~9~~ 10. Tritium	B	Tritium
	C	7500-H B
	L	906
~~10~~ 11. Uranium	B	Uranium
	C	7500-U B,C
	L	908, 908.1
	I	D2907-83
~~11~~ 12. Gamma Emitting Isotopes	L	901.1

~~R9-14-609~~ R9-14-610. Wastewater Sample Matrix

Every laboratory which conducts compliance testing under this rule shall use the following approved methods, unless a method falls under an alternate method pursuant to R9-14-608(A) or (B). To locate the source of the approved method, cross reference the capital letter listed under "Key" to the reference designation listed in ~~R9-14-607.A~~ R9-14-608(C).

	Key	Approved Method
A. Microbiology:		
1. Fecal Coliforms:		
Multiple Tube Fermentation	C	~~9221C~~ 9221E
Membrane Filter	C	9222D
	J	~~B-0050-77~~ B-0050-85
2. Total Coliforms:		
Multiple Tube Fermentation	C	9221B
Membrane Filter	C	9222B
	J	B-0025-77
3. Fecal Streptococcus:		
Multiple-Tube	C	9230B
Membrane Filter	C	9230C
	J	~~B0055-77~~ B0055-85
4. Viruses	P	Methods for Virology
	C	9510

	Key	Approved Method
B. Inorganic chemicals, nutrients and demand:		
1. Acidity	A	305.1, ~~305.2~~
	C	2310B
	I	~~D1067-88B~~ D1067-92
2. Alkalinity, Total	A	310.1, 310.2
	C	2320B
	I	~~D1067-88B~~ D1067-92
	J	~~I-1030-84~~ I-1030-85, ~~I-2030-84~~ I-2030-85
3. Aluminum	A	~~200.7,~~ 202.1, 202.2
	A1	200.7, 200.8, 200.9
	C	3113B, 3111D, ~~3500-Al B,C,~~ 3120B
	J	I-3051-85
4. Ammonia	A	350.1, 350.2, 350.3
	C	4500-NH3 B,C,~~D~~,E,F,G,H
	I	D1426-89A, D1426-89B

	J	~~I-3520-84~~ I-3520-85, ~~I-4523-84~~ I-4523-85
5. Antimony	A	~~200.7,~~ 204.1, 204.2
	A1	200.7, 200.8, 200.9
	C	3113B, ~~3500-Sb B,C,~~ 3120B, 3111B
6. Arsenic	A	~~200.7,~~ 206.2, 206.3, 206.4, 206.5
	A1	200.7, 200.8, 200.9
	C	3113B, 3500-AsB,C,~~E,~~ 3120B
	I	~~D2972-88A, D2972-88B~~ D2972-88A,B,C
	J	I-3060-85, I-3062-85
7. Barium	A	~~200.7,~~ 208.1, 208.2
	A1	200.7, 200.8
	C	3111, 3113B, ~~3500-Ba B,C,~~ 3120B
	I	D4382-91
	J	I-3084-85
8. Beryllium	A	~~200.7,~~ 210.1, 210.2
	A1	200.7, 200.8, 200.9
	C	3111, 3111D, 3113B, 3120B, 3500-Be ~~B,C,~~D
	I	D3645-84A, D364588B, D419088
	J	I-3095-85
9. Biochemical Oxygen Demand	A	405.1
	C	5210B
	J	I-1578-78
10. Boron	A	~~200.7,~~ 212.3
	A1	200.7
	C	3120B, 4500-B B,~~D~~
	J	I-3112-85
11. Bromide	A	320.1
	A2	300.0
	I	~~D1246-88~~ D1246-88C
	J	~~I-1125-84~~ I-1125-85
	~~V~~	~~300.0~~
12. Cadmium	A	~~200.7,~~ 213.1, 213.2
	A1	200.7, 200.8, 200.9
	C	~~3111~~ 3111B,C, 3113B, 3120B, 3500-Cd ~~B,C,~~ D
	D	3557-90 A,B,C, D4190-82
	J	I-3135-85, I-3136-85
13. Calcium	A	~~200.7,~~ 215.1, 215.2
	A1	200.7
	C	3111, 3120B, 3500-Ca ~~B,C,~~ D
	I	~~D511-88A~~ D511-92A, ~~D511-88B~~ D511-92B
	J	I-3152-85
14. Chemical Oxygen Demand	A	410.1, 410.2, 410.3, 410.4
	C	~~5220B~~, 5220B,C,D
	C1	8000
	I	~~D-1252-88~~ D-1252-88A,B
	J	~~I-3560-84~~ I-3560-85, ~~I-3561-84~~ I-3561-85, ~~I-3562-84~~ I-3562-85
15. Chloride	A	325.1, 325.2, 325.3
	A2	300.0
	C	4500-Cl B,C,E,~~F~~
	I	D512-89A, D512-89B
	J	~~I-1183-84~~ I-1183-85, ~~I-1187-84~~ I-1187-85, ~~I-2187-84~~ I-2187-85, I-1184-85
	~~V~~	~~300.0~~
16. Chlorine, Total Residual	A	330.1, 330.2, 330.3, 330.4, 330.5

	C	4500-Cl B,C,D,~~E~~,F,G
	I	D1253-86
17. Chromium, Hexavalent	A	218.4, ~~218.5~~
	C	3500-Cr D, 3111C
	I	D1687-92A
	J	~~I-1230-84~~ I-1230-85, ~~I-1232-84~~ I-1232-85
18. Chromium, Total	A	~~200.7,~~ 218.1, 218.2, 218.3
	A1	200.7, 200.8, 200.9
	C	~~3111~~ 3111B,C, 3113B, 3120B, 3500-Cr ~~B,C~~,D
	I	~~D1687-86A, D1687-86B~~ D1687-92A,B,C, D4190-82
	J	I-3236-85
19. Cobalt	A	~~200.7,~~ 219.1, 219.2
	A1	200.7, 200.8, 200.9
	C	~~3111~~ 3111B,C, 3113B, 3120B ~~3500-Co B,C~~
	I	~~D3558-85A, D3558-85B~~ D3550-90A,B, D1490-82
	J	~~I-3239-84~~ I-3239-85, ~~I-3240-84~~
20. Color	A	110.1, 110.2, 110.3
	C	2120B, 2120C, 2120E
	J	~~I-1250-84~~ I-1250-85
21. Copper	A	~~200.7,~~ 220.1, 220.2
	A1	200.7, 200.8, 200.9
	C	~~3111~~ 3111B,C, 3113B, 3120B, 3500-Cu ~~B,C~~,D,E
	C1	8506
	I	~~D1688-90A~~ D1688-90A,B,C, D4190-82
	J	I-3270-85, I-3271-85
22. Cyanide, Amenable to Chlorination	A	335.1
	C	4500-CN G
	I	~~D2036-89B~~ D2036-91B
23. Cyanide, Total	A	335.2, 335.3
	C	4500-CN C,D,E
	I	~~D2036-89A~~ D2036-91A
	J	~~I-3300-84~~ I-3300-85
24. Fluoride	A	340.1, 340.2, 340.3
	A2	300.0
	C	4500-F B,C,D,E
	I	D1179-88A, D1179-88B
	J	~~I-4327-84~~ I-4327-85
25. Gold	A	231.1, 231.2
	C	~~3111~~ 3111B, ~~3500-Au B~~
26. Hardness	A	130.1, 130.2, Sum of ~~215.1 & 242.1 or~~ ICP Ca & Mg as their carbonates.
	A1	200.7
	C	2340B, 2340C
	I	D1126-86
	J	~~I-1338-84~~ I-1338-85
27. Iridium		A235.1, 235.2
	C	~~3111~~ 3111B
28. Iron	A	~~200.7,~~ 236.1, 236.2
	A1	200.7, 200.9
	C	~~3111~~ 3111B,C, 3113B, 3120B, 3500-Fe ~~B,C~~,D
	C2	8008
	I	D1068-90 A,B,C,D, D4190-82
	J	I-3381-85
29. Kjeldahl, Total Nitrogen	A	351.1, 351.2, 351.3, 351.4
	C	4500-NH3 B,C,E,F,G, ~~4500-N B, 4500-N C~~

	I	D3590-89A, D3590-89B
	J	I-4551-78
30. Lead	A	~~200.7,~~ 239.1, 239.2
	A1	200.7, 200.8, 200.9
	C	~~3111~~ 3111B,C, 3113B, 3120B, 3500-Pb ~~B,C,~~D
	I	~~D3559-85A,B,C~~ D3559-85A,B,C,D, D4190-82
	J	I-3399-85
31. Magnesium	A	~~200.7,~~ 242.1
	A1	200.7
	C	~~3111~~ 3111B, 3500-Mg ~~B,C,~~D, 3120B
	I	~~D511-88A, D511-88B~~ D511-92B
	J	I-3447-85
32. Manganese	A	~~200.7,~~ 243.1, 243.2
	A1	200.7, 200.8, 200.9
	C	~~3111~~ 3111B, 3113B, 3120B, 3500-Mn ~~B,C,~~D
	C1	8034
	I	~~D858-90A, D858-90C~~ D858-90A,B,C, D4190-82
	J	I-3454-85
33. Mercury	A	~~245.1,~~ 245.2
	A1	245.1
	C	~~3500-Hg B~~, 3112B
	I	~~D3223-86~~ D3223-91
	J	~~I-3462-84~~ I-3462-85
34. Molybdenum	A	~~200.7,~~ 246.1, 246.2
	A1	200.7, 200.8
	C	~~3111~~ 3111D, 3113B, 3120B ~~3500-Mo B,C~~
	J	I-3490-85
35. Nickel	A	~~200.7,~~ 249.1, 249.2
	A1	200.7, 200.8, 200.9
	C	~~3111~~ 3111B,C, 3113B, 3120B, 3500-Ni ~~B,C,~~D
	I	~~D1886-90A, D1886-90C~~ D1886-90A,B,C, D4190-82
	J	I-3499-85
36. Nitrate, ~~Nitrogen~~	A	352.1, 353.1, 353.2, 353.3
	A2	300.0
	C	4500-NO3 ~~C,~~E,F,H
	I	D3867-90A, D3867-90B
	J	~~I-4545-84~~ I-4545-85
	~~V~~	~~300.0~~
37. Nitrite, ~~Nitrogen~~	A	354.1
	A2	300.0
	C	4500-NO2 ~~B, 4500-NO2 C~~
	C1	8507
	~~I~~	~~D4327-88~~
	J	~~I-4540-84~~ I-4540-85
	~~V~~	~~300.0~~
38. Oil and Grease	A	413.1, ~~413.2~~
	C	5520B
39. Organic Carbon, Total (TOC)	A	415.1, ~~415.2~~
	C	~~5310~~ 5310B,C,D
	I	D2579-85A, D2579-85B
40. Orthophosphate	A	365.1, 365.2, 365.3
	A2	300.0
	C	4500-P E,F
	I	D515-88A
	J	I-4601-85
~~40~~ 41. Osmium	A	252.1, 252.2
	C	~~3111~~ 3111D, ~~3500-Os B~~

~~41~~ 42. Oxygen, Dissolved	A	360.1, 360.2
	C	4500-O C, 4500-O G
	I	~~D888-87B~~ D888-92A,B
	J	I-1575-78, I-1576-78
~~42~~ 43. Palladium	A	253.1, 253.2
	C	3111B
~~43~~ 44. pH (Hydrogen Ion)	A	150.1, ~~150.2~~
	C	4500-H B
	I	D1293-84A, D1293-84B
	J	~~I-1586-84~~ I-1586-85
~~44. Phenols, Total~~	~~A~~	~~420.1, 420.2~~
	~~I~~	~~D1783-87A, D1783-87B~~
~~45. phosphate, Ortho~~	~~A~~	~~365.1, 365.2, 365.3~~
	~~C~~	~~4500-P E, 4500-P F~~
	~~I~~	~~D515-88A~~
	~~J~~	~~I-4601-84~~
~~46~~ 45. Phosphorus, Total	A	365.1, 365.2, 365.3, 365.4
	C	4500-P B,E,F
	I	D515-88A, D515-88B
	J	~~I-4600-84~~ I-4600-85
~~47~~ 46. Platinum	A	255.1, 255.2
	C	~~3111~~ 3111B, ~~3500-Pt B~~
~~48~~ 47. Potassium	A	~~200.7,~~ 258.1
	A1	200.7
	C	~~3111~~ 3111B, 3500-K ~~B,C,~~D, 3120B
	J	~~I-3630-84~~ I-3630-85
~~49~~ 48. Residue, Total	A	160.3
	C	2540B
	J	~~I-3750-84~~ I-3750-85
~~50~~ 49. Residue, Filterable (TDS)	A	160.1
	C	2540C
	J	~~I-1750-84~~ I-1750-85
~~51~~ 50. Residue, Nonfilterable (TSS)	A	160.2
	C	2540D
	J	~~I-3765-84~~ I-3765-85
~~52~~ 51. Residue, Settleable Solids	A	160.5
	C	2540F
~~53~~ 52. Residue, Volatile	A	160.4
	~~C~~	~~2540E~~
	J	~~I-3753-84~~ I-3753-85
~~54~~ 53. Rhodium	A	265.1, 265.2
	C	~~3111~~ 3111B, ~~3500-Rh B~~
~~55~~ 54. Ruthenium	A	267.1, 267.2
	C	~~3111~~ 3111B, ~~3500-Ru B~~
~~56~~ 55. Selenium	A	~~200.7,~~ 270.2, ~~270.3~~
	A1	200.7, 200.8, 200.9
	C	3113B, ~~3500-Se C,H,I,~~ 3120B 3114B
	I	D3859-88A
	J	~~I-3667-84~~ I-3667-85
~~57~~ 56. Silica, Dissolved	A	~~200.7,~~ 370.1
	A1	200.7
	C	4500-Si D,~~G~~, 3120B
	I	D859-88
	J	~~I-1700-84~~ I-1700-85, ~~I-2700-84~~ I-2700-85
~~58~~ 57. Silver	A	~~200.7,~~ 272.1, 272.2
	A1	200.7, 200.8, 200.9
	C	~~3111~~ 3111B,C, 3113B, 3120B, ~~3500-Ag B,C,D~~
	J	I-3720-85
~~59~~ 58. Sodium	A	~~200.7,~~ 273.1, ~~273.2~~
	A1	200.7
	C	~~3111~~ 3111B, ~~3500-Na B,C,D,~~ 3120B
	~~I~~	~~D4191-82~~

	J	I-3735-85
59. Sodium Azide	C	4110C
60. Sodium/Potassium Perchlorate	V	300.0
~~60~~ 61. Specific Conductance	A	120.1
	C	2510B
	I	~~D1125-82A~~ D1125-91A
	J	~~I-1780-84~~ I-1780-85
~~61~~ 62. Strontium	~~A~~ A1	200.7
	C	3111, 3500-Sr B,C,D, 3120B
~~62~~ 63. Sulfate	A	375.1, ~~375.2,~~ 375.3, 375.4
	A2	300.0
	C	4500-SO_4 ~~B~~,C,D,~~E~~
	I	~~D516-88~~ D516-90
	~~V~~	~~300.0~~
~~63~~ 64. Sulfide	A	376.1, 376.2
	C	4500-S D, 4500-S E
	J	~~I-3840-84~~ I-3840-85
~~64~~ 65. Sulfite	A	377.1
	C	4500-SO_3 B
~~65~~ 66. Surfactants (MBAS)	A	425.1
	C	5540C
	I	D2330-88
~~66~~ 67. Temperature Degrees Celsius	A	170.1
	C	2550B
~~67~~ 68. Thallium	A	~~200.7,~~ 279.1, 279.2
	A1	200.7, 200.8, 200.9
	C	~~3111~~ 3111B, ~~3500-Tl B,C,~~ 3120B
~~68~~ 69. Tin	A	282.1, 282.2, ~~200.7~~
	A1	200.7, 200.9
	C	~~3111~~ 3111B, 3113B, ~~3500-Sn B, 3120B~~
	J	I-3850-78
~~69~~ 70. Titanium	A	283.1, 283.2
	C	~~3111~~ 3111D, ~~3500-Ti B~~
~~70~~ 71. Turbidity, NTU	A	180.1
	C	2130B
	I	~~D1889-88~~ D1889-88A
	J	~~I-3860-84~~ I-3860-85
~~71~~ 72. Vanadium	A	~~200.7,~~ 286.1, 286.2
	A1	200.7, 200.8
	C	~~3111~~ 3111D, 3500-V ~~B,C,~~D, 3120B
	I	~~D3373-88~~ D4190-82
~~72~~ 73. Zinc	A	~~200.7,~~ 289.1, 289.2
	A1	200.7, 200.8, 200.9
	C	~~3111~~ 3111B,C, ~~3113B,~~ 3120B, 3500-Zn ~~B,C~~ ,E,F
	C1	8009
	~~ID1691-90A~~	D1691-90A,B D4190-82
	J	I-3900-85

C. Aquatic toxicity and bioassay:

	Key	Approved Method
~~1.~~ Static, Static/Renewal and Flow-Through	C	8711, 8910
~~2. Static and Flow-Through~~	~~M~~	~~Static and Flow-Through~~
~~3.~~ 2. ~~Static and Static Renewal~~	~~N~~	~~Static and Static Renewal~~

D. Organic chemical:

	Key	Approved Method
1. Halogenated Volatiles	E	601
2. Aromatic Volatiles	E	602
3. Acrolein and Acrylonitrile	E	603
4. Phenols	E	604
5. Benzidines	E	605
6. Phthalate Esters	E	606
7. Nitrosamines	E	607
8. Organochlorine Pesticides and PCBs	E	608
9. Nitroaromatics and Isophorone	E	609
10. Polynuclear Aromatic hydrocarbons	E	610

11. Haloethers	E	611
12. Chlorinated Hydrocarbons	E	612
13. 2,3,7,8-Tetrachlorodibenzo-p-Dioxin	E	613
14. Triazine Pesticides	E	619
15. Purgeables	E	624, 1624
16. Base/Neutrals and Acids	E	625, 1625
17. Carbamates and Urea Pesticides	E	632
18. Total Petroleum Hydrocarbons	A	418.1
19. Ethylene Glycol in Wastewater	K	BLS-188

E. Radiochemical:	Key	Approved Method
1. Gross Alpha	C	7110B
	I	~~D1943-81~~ D1943-90
	L	900
2. Gross Beta	C	7110B
	I	~~D1890-81~~ D1890-90
	L	~~900~~ 900.0
3. Total Radium	C	7500-Ra B
	I	~~D2460-70~~ D2460-90
	L	~~903~~ 903.0
4. Radium-226	C	7500-Ra C
	I	~~D3454-86~~ D3454-91
	L	903.1

~~R9-14-610~~ R9-14-611. Solid, Liquid, and Hazardous Waste Sample Matrix

Every laboratory which conducts compliance testing under this rule shall use the following approved methods, unless required by ADEQ or EPA, or unless a method falls under an alternate method pursuant to R9-14-608(A) or (B). To locate the source of the approved method, cross reference the capital letter listed under "Key" to the reference designation listed in ~~R9-14-607.A~~ R9-14-608(C).

A. Microbiology:	Key	Approved Method
1. Total Coliforms:		
Multiple Tube Fermentation	F	9131
Membrane Filter	F	9132

B. Hazardous waste characteristics:	Key	Approved Method
1. Corrosivity:		
pH determination	F	~~9040~~ 9040A, ~~9041~~ 9041A
corrosive to steel	F	1110
Dermal	E	1120
2. Ignitability	F	1010, ~~1020~~ 1020A, 1030
3. Reactivity	F	Reactivity

C. Sample extraction procedures:	Key	Approved Method
1. Extraction Procedure Toxicity (EP TOX)	F	~~1310~~ 1310A
2. Toxicity Characteristic Leaching Procedure (TCLP)	F	1311
3. Multiple Extraction Procedure		F1320
4. Extraction Procedure For Oily Waste	F	~~1330~~ 1330A
5. Synthetic Precipitation Leaching Procedure (SPLP)	E	1312

D. Metals sample preparation:	Key	Approved Method
1. Dissolved in Water	F	~~3005~~ 3005A
2. Total Recoverable in Water	F	~~3005~~ 3005A
3. Total Metals	F	~~3010~~ 3010A, ~~3020~~ 3120A
4. Oils, Greases, and Waxes	F	3040, 3031
5. Sediments, Sludges, and Soils	F	~~3050~~ 3050A
6. Microwave Assisted Digestions	E	3015, 3051

E. Inorganic chemical:	Key	Approved Method
1. Aluminum	F	~~6010~~ 6010A, 6020, 7020
2. Antimony	F	~~6010~~ 6010A, 6020, 7040, 7041, 7062
3. Arsenic	F	~~6010~~ 6010A, ~~7060~~ 7060A, ~~7061~~ 7061A, 7062, 7063, 6020

4.	Barium	F	~~6010~~ 6010A, 6020, ~~7080~~ 7080A, 7081
5.	Beryllium	F	~~6010~~ 6010A, 6020, 7090, 7091
6.	Cadmium	F	~~6010~~ 6010A, 6020, 7130, ~~7131~~ 7131A
7.	Calcium	F	~~6010~~ 6010A, 7140
8.	Chromium, Total	F	~~6010~~ 6010A, 6020, 7190, 7191
9.	Chromium, Hexavalent	F	7195, ~~7196~~ 7196A, 7197, 7198, 7199
10.	Cobalt	F	~~6010~~ 6010A, 6020, 7200, 7201
11.	Copper	F	~~6010~~ 6010A, 6020, 7210, 7211
12.	Iron	F	~~6010~~ 6010A, 7380, 7381
13.	Lead	F	~~6010~~ 6010A, 6020, 7420, 7421
14.	Lithium	F	~~6010~~ 6010A, 7430
15.	Magnesium	F	~~6010~~ 6010A, 7450
16.	Manganese	F	~~6010~~ 6010A, 6020, 7460, 7461
17.	Mercury	F	~~7470~~ 7470A, ~~7471~~ 7471A, 7472
18.	Molybdenum	F	~~6010~~ 6010A, 7480, 7481
19.	Nickel	F	~~6010~~, 6010A, 6020, 7520, 7521
20.	Osmium	F	~~6010~~ 6010A, 7550
21.	Potassium	F	~~6010~~ 6010A, 7610
22.	Selenium	F	~~6010~~ 6010A, 7740, ~~7741~~ 7741A, 7742
23.	Silver	F	~~6010~~ 6010A, 6020, ~~7760~~ 7760A, 7761
24.	Sodium	F	~~6010~~ 6010A, 7770
25.	Strontium	F	~~6010~~ 6010A, 7780
26.	Thallium	F	~~6010~~ 6010A, 6020, 7840, 7841
27.	Tin	F	~~6010~~ 6010A, 7870
28.	Vanadium	F	~~6010~~ 6010A, 7910, 7911
29.	Zinc	F	~~6010~~ 6010A, 6020, 7950, 7951
30.	White Phosphorus By GC		F7580

F.	Sample preparation and extraction:	Key	Approved Method
1.	Preparation and Extraction	F	~~3500~~ 3500A
2.	Funnel Liquid-Liquid Extraction	F	~~3510~~ 3510B
3.	Continuous Liquid-Liquid Extraction	F	~~3520~~ 3520B
4.	Solid Phase Extraction	E	3535
4 5.	Soxhlet Extraction	F	~~3540~~ 3540B, 3541
6.	Accerated Solvent Extraction	E	3545
~~5~~ 7.	Sonication Extraction	F	~~3550~~ 3550A
8.	Supercritical Fluid Extraction	F	3560, 3561
~~6~~ 9.	Waste Dilution	F	~~3580~~ 3580A, 3585
~~7~~ 10.	Purge and Trap	F	~~5030~~ 5030A
~~8~~ 11.	Sorbent Cartridges from Organic Sampling Train	F	~~5040~~, 5041
12.	Cyanide Extraction for Solids and Oils	E	9013
13.	Bomb Preparation Method for Solid Waste	E	5050

G.	Sample cleanup:	Key	Approved Method
1.	Cleanup	F	~~3600~~ 3600B
2.	Alumina Column	F	~~3610~~ 3610A
3.	Alumina Column - petroleum wastes	F	~~3611~~ 3611A
4.	Florisil Column	F	~~3620~~ 3620A
5.	Silica Gel Cleanup	F	~~3630~~ 3630B
6.	Gel-Permeation Cleanup	F	~~3640~~ 3640A
7.	Acid-Base Partition	F	~~3650~~ 3650A
8.	Sulfur Cleanup	F	~~3660~~ 3660A
9.	Sulfuric Acid/Permanganate Cleanup	E	3665

H.	Organic chemical:	Key	Approved Method
~~1.~~	~~Halogenated Volatile Organics~~	~~F~~	~~8010~~
~~2~~ 1.	EDB and DBCP	F	8011
~~3~~ 2.	Nonhalogenated Volatile Organics	F	~~8015~~ 8015A, 8015M

~~4. Aromatic Volatile Organics~~	~~E~~	~~8020~~
~~5~~ 3. Volatile Organics	F	~~8021~~ 8021A, ~~8240~~, ~~8260~~ 8260A
~~6~~ 4. Acrolein/Acrylonitrile/Acetonitrile	F	~~8030~~, 8316
5. Acrylonitrile	E	8031
6. Acrylamide	E	8032
7. Acetonitrile	E	8033
~~7~~ 8. Phenols	F	~~8040~~ 8041
~~8~~ 9. Phthalate Esters	F	~~8060~~ 8061
~~9~~ 10. Nitrosamines	F	8070, 8330
~~10~~ 11. Organochlorine Pesticides and PCBs	F	~~8080~~ 8081, 8082
12. PCBS In Waste Oil	E1	EPA-600/4-81-045
~~11~~ 13. Nitroaromatics and Cyclic Ketones	F	~~8090~~ 8330, 8091
~~12~~ 14. Polynuclear Aromatic Hydrocarbons	F	8100, 8310
~~13~~ 15. Haloethers	F	~~8110~~ 8111
~~14~~ 16. Chlorinated Hydrocarbons	F	~~8120~~ 8121
~~15~~ 17. Organophosphorus Pesticides	F	~~8140 8141~~ 8141A ~~16~~
18. Chlorinated Herbicides	F	~~8150~~ 8151
~~17~~ 19. Semivolatile Organics GC/MS	F	~~8250, 8270~~ 8270B, 8275A
20. Semi-Volatiles By GC/FT-IR	E	8410
~~18~~ 21. Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans	F	8280, 8290
22. Carbonyl Compounds	E	8315
23. N-Methylcarbamates	E	8318
24. Non-Volatile Organics (HPLC/TSP/MS)(HPLC/PB/MS)	E	8321, 8325
25. Tetrazine	E	8331
~~19~~ 26. Total Petroleum Hydrocarbons in Soil	K	~~BLS-181~~ 418.1AZ, 8440
~~20~~ 27. Fuel Class Hydrocarbons	K	BLS-191
28. Trinitrotoluene	E	4050
29. RDX By Immunoassay	E	4051
30. Aniline And Derivatives	E	8131
31. Nitroglycerine	E	8332
32. Bis(2-chloroethyl)Ether Hydrolysis Products	E	8430

I. Organic chemical screening:	Key	Approved Method
1. Headspace	F	3810, 5021
2. Purgeables after Hexadecane Extraction	F	3820
3. Semivolatile Organics TC/MS	E	8275
4. Immunoassay	E	4010, 4015, 4020, 4030 4035, 4040, 4041, 4042
5. Polychlorinated Biphenyls	E	9078, 9079
6. Trinitrotoluene	E	8515

J. Miscellaneous:	Key	Approved Method
1. ~~Total and Amenable~~ Cyanide	F	~~9010~~ 9010A, 9012, 9213
2. Total Organic Halides (TOX)	F	~~9020~~ 9020B, 9022
3. Purgeable Organic Halides (POX)	F	9021
4. Extractable Organic Halides (EOX)	E	9023
~~4~~ 5. Sulfides	F	~~9030~~ 9030A, 9031, 9215
~~5~~ 6. Sulfate	F	9035, 9036, 9038, 9056
~~6~~ 7. pH (Hydrogen ion)	F	~~9040~~ 9040A, ~~9041~~ 9041A, ~~9045~~ 9045B
~~7~~ 8. Specific Conductance	F	9050
~~8~~ 9. Total Organic Carbon (TOC)	F	9060
~~9~~ 10. Phenolics	F	9065, 9066, 9067
~~10~~ 11. Total Recoverable Oil an Grease	F	9070, ~~9071~~ 9071A
~~11~~ 12. Nitrate	F	~~9200,~~ 9210, 9056
13. Nitrite	E	9056
~~12~~ 14. Chloride	F	9250, 9251, ~~9252~~ 9252A, 9057, 9212
15. Bromide	E	9056, 9211
16. Fluoride	E	9056, 9214
17. Total Chlorine In New And Used Petroleum Products	E	9075, 9076, 9077
18. Cation-Exchange Capacity of Soils	E	9080, 9081

19.	Compatibility Test For Wastes and Membrane Liners	E	9090A
20.	Paint Filter Liquids Test	E	9095
21.	Liquid Release Test Procedure	E	9096
22.	Saturates Hydraulic and Leachate Conductivity, and Intrinsic Permeability	E	9100
23.	Chloride	E	9056
24.	O-Phosphate-P	E	9056

K.	Asbestos:	Key	Approved Method
1.	Fiber Counting	G	7400, 7402
2.	Bulk Asbestos	G	9002
		H	Bulk Asbestos

L.	Radiochemical:	Key	Approved Method
1.	Gross Alpha and Beta	F	9310
2.	Alpha-Emitting Radium Isotopes	F	9315
3.	Radium-228	F	9320

~~R9-14-611~~ R9-14-612. Air Sample Matrix

Every laboratory which conducts compliance testing under this rule shall use the following approved methods, unless a method falls under an alternate method pursuant to R9-14-608(A) or (B). To locate the source of the approved method, cross reference the capital letter listed under "Key" to the reference designation listed in ~~R9-14-607.A~~ R9-14-608(C).

A.	Ambient air: ~~primary and secondary pollutants:~~	Key	Approved Method
1.	Carbon Monoxide	O	Appendix C
2.	Hydrocarbons	O	Appendix E
3.	Lead	O	Appendix G
4.	Nitrogen Dioxide	O	Appendix F
5.	Ozone	O	Appendix D, H
6.	Particulate Matter	O	Appendix B, J, K
7.	Sulfur Oxides	O	Appendix A
8.	Formaldehyde	E	8520

B.	Stationary and stack sources:	Key	Approved Method
1.	Carbon Dioxide, Oxygen and Excess Air	Q	Method 3, ~~31~~
2.	Carbon Monoxide	Q	Method 10, 10A, 10B
3.	Carbonyl Sulfide, Hydrogen Sulfide and Carbon ~~Dioxide~~ Disulfide	Q	Method 15
4.	Fluoride	Q	Method 13A, 13B, 14
5.	Fugitive Emissions	Q	Method 22
6.	Gaseous Organic Compounds	Q	Method 18, 25, 25A, 25B
7.	Hydrogen Sulfide	Q	Method 11, ~~15~~
8.	Inorganic Lead	Q	Method 12
9.	Moisture Content	Q	Method 4
10.	Nitrogen Oxide	Q	Method 7, 7A, 7B, 7C, 7D, 7E, 19, 20
11.	Particulate Emissions:		
	Asphalt Processing	Q	Method 5A
	Fiberglass Insulation	Q	Method 5E
	Nonsulfate	Q	Method 5F
	Nonsulfuric Acid	Q	Method 5B
	Pressure Filters	Q	Method 5D
	Stationary Sources	Q	Method 5, 17
	Sulfur Dioxide	Q	Method 19
	Wood Heaters	Q	Method 5G, 5H
12.	Sulfur and Total Reduced Sulfur	Q	Method 15A, 16, 16A, 16B
13.	Sulfur Dioxide	Q	Method 6, 6A, 6B, 6C, 8, 19, 20
14.	Sulfuric Acid Mist	Q	Method 8
15.	Vapor Tightness Gasoline Delivery Tank	Q	Method 27
16.	Volatile Matter, Density Solids and water	Q	Method 24, 24A

17. Volatile Organic Compounds
18. Wood Heaters Certification and Burn Rates

C. ADEQ emission tests:
1. Particulate Emissions:
Sulfuric Acid Mist/Sulfur Oxides
Dry Matter

D. National emission standards for hazardous air pollutants:
1. Arsenic
2. Beryllium
3. Mercury
4. Polonium-210
5. Vinyl Chloride

Key	Approved Method
Q	Method 21
Q	Method 28, 28A

Key	Approved Method
R	Method A1
R	Method A2

Key	Approved Method
S	Method 108, 108A, 108B, 108C
S	Method 103, 104
S	Method 101, 101A, 102, 105
S	Method 111
S	Method 106, 107, 107A

~~R9-14-612~~ R9-14-613. Quality Assurance

A. The laboratory shall have a written quality assurance plan that describes actions to be taken by the lab to ensure that routinely generated analytical data are scientifically valid and defensible and are of known and acceptable precision and accuracy. The written plan shall contain:
1. A title page identifying the laboratory, ~~date of preparation,~~ date of review and the laboratory director's signature of approval;
2. A table of contents;
3. A detailed statement of the laboratory organization, line of authority and identification of principal quality assurance personnel;
4. A statement of quality assurance objectives, including data quality objectives with precision and accuracy goals, and criteria for the laboratory to judge the acceptability of each testing;
5. Specifications for:
a. The use of proper sample containers;
b. The proper preparation of sample containers;
c. The proper preservation of samples; and
d. Compliance sample maximum allowable holding times;
6. A procedure for documenting laboratory receipt of samples and tracking of samples throughout laboratory testing;
7. A procedure for analytical instrument calibration and frequency;
8. ~~A listing of all compliance testing parameters and approved methods performed by the laboratory~~ A copy of the laboratory's current license and list of licensed parameters;
9. A listing of the procedures for compliance testing data reduction, validation, and reporting. These procedures shall include the identification and treatment of data outliers, ~~and procedures for determining~~ the determination of the completeness and accuracy of data transcription and all calculations;
10. A ~~Statement~~ statement of the frequency of use and acceptance tolerance of all compliance testing quality control checks;
11. Preventive maintenance procedures and schedules;
12. Assessment procedures for data acceptability;
13. Corrective action procedures taken when results from analytical quality control checks are unacceptable. These procedures shall include the steps taken to demonstrate the presence of any interference if the precision, accuracy, or the practical quantitation limit of the reported compliance testing result is affected by the interference; and
14. Procedures for chain-of-custody documentation, including procedures for the documentation and reporting of any deviation from the sample handling or preservation requirements listed in this Section.

B. The laboratory shall:
1. Have available on the premises all methods, equipment, reagents, and glassware necessary for the compliance testing for which the laboratory is licensed or is requesting licensure, ~~unless it~~ If the laboratory documents its ability to perform the approved method and ensures that the analytical data generated are scientifically valid and defensible and are of known and acceptable precision and accuracy ~~in a~~ it may petition for an exemption only from this subsection ~~only~~;
2. Use only reagents of a grade equal to or greater than that called for by the approved methods referenced in ~~R9-14-608~~ R9-14-609 through ~~R9-14-611~~ R9-14- 612;
3. Maintain complete and current Standard Operating Procedures (SOPs) for all licensed methods;
~~3~~ 4. Calibrate equipment according to the manufacturer's specifications and as required by the approved method;
4 5. Maintain calibration logs available for on-site review. Calibration and documentation thereof by a laboratory instrument service organization is acceptable;
~~5~~ 6. Develop, ~~and~~ document, and maintain current method detection limits and ~~the~~ practical quantitation ~~limit~~ limits for each compliance parameter, approved method and sample matrix for each instrument of use;
~~6~~ 7. Maintain all compliance testing equipment in good working order; ~~and~~
~~7~~ 8. Maintain quality control charts which demonstrate the accuracy and precision of its compliance testing.;
9. If a laboratory tests for a parameter for which quality control acceptance criteria is not specified, the laboratory must statistically develop limits from historical data. The mean and standard deviation for a minimum of 20 data points, excluding statistical outliers, must be determined. The limits shall be no more than 3 standard deviations from the mean and shall be in the detectable range; and
10. Discard or segregate all expired standards or reagents from all compliance testing.

~~R9-14-613~~ R9-14-614. Operation

A. All samples accepted by a laboratory for compliance testing shall be analyzed by that laboratory, except that samples, other than those submitted for ~~performance~~ performance evaluation audit purposes, may be forwarded to another laboratory

licensed under this Article or certified by EPA for examination.

B. If the laboratory performing an examination is not the laboratory which accepted the sample, all reports shall include the name and address of the laboratory accepting the sample and the name and address of the laboratory actually examining the sample.

C. The laboratory shall:
1. Maintain the facility and utilities required for proper equipment operation and use of compliance testing approved methods;
2. Provide ~~ventilation and~~ environmental ~~control~~ controls such that laboratory conditions do not affect analytical results beyond established quality control limits established for the approved methods listed in ~~R9-14-609~~ R9-14-609 through ~~R9-14-611~~ R9-14-612; ~~and~~
3. Provide for storage, handling, and disposal of hazardous materials in accordance with all state and federal regulations~~.~~; and
4. Maintain documentation on all analytical personnel involved in compliance testing. The documentation shall provide that all these personnel have been trained in the test procedures prior to their performance of unmonitored testing and the documentation shall include:
   a) Summary of analyst's education and professional experience.
   b) Verification of the analyst's review of the laboratory Quality Assurance Plan, and the approved methods and laboratory Standard Operating Procedures used by the analyst for compliance testing.
   c) Verification of the analyst's completion of monitored training which includes the actual use of the equipment and the use of proper laboratory technique. Verification shall include the name of the instructor, the duration of the training, and the date of completion of the training.
   d) Verification of the analyst's completion of training classes, continuing education courses, seminars, and/or conferences, which relate to the testing procedures used by the analyst for compliance testing.
   e) Verification of the analyst's successful completion of Initial Demonstration of Capability as required by the approved methods.
   f) Records of analysis of proficiency evaluation testing.

~~R9-14-614~~ R9-14-615. Laboratory Records and Reports

A. Records and reports required to be maintained by this Article shall be available for inspection and copying during normal business hours by representatives of the Department. Copied records can be removed from the laboratory by the Department.

B. Records and reports of compliance testing shall be kept by the laboratory for at least 5 years. Records and reports for the most current 2 years shall be kept on-site and the remaining records and reports may be stored in a secure and easily accessible storage facility.

C. If Arizona compliance data is not available for inspection and copying, the laboratory shall make available for inspection and copying any current non-Arizona compliance data requested by Department representatives to evaluate methods and procedures applied for by the laboratory.

~~C~~D. Compliance testing records shall contain:
1. Sample information including a unique sample identification assigned by the laboratory, location or location code of sample collection, sample collection date and time, type of testing to be performed and the name of person who collected the sample;
2. The name and address of the facility or person submitting the sample to the laboratory;
3. The date, time and name of the person who receives the sample into the laboratory;
4. The date and time of testing;
5. The actual results of compliance testing, including all raw data, work sheets, and calculations performed;
6. The actual results of quality control data validating the test results including calibration and calculations performed;
7. The name of the person or persons performing the test; and
8. A copy of the final report.

~~D~~E. Complete laboratory personnel records shall be maintained as to:
1. Academic training;
2. Experience;
3. Qualifications; and
4. Applicable certifications, specialized training or both.

~~E~~F. Analytical instrumentation performance records shall be maintained to demonstrate consistent standardization performance with ~~standard~~ standardized reference materials.

~~F~~G. Reports of compliance testing shall contain:
1. Laboratory name, address, and telephone number;
2. Laboratory license number issued by the Department;
3. Result of compliance testing in appropriate units of measure:
   a) Actual scientifically valid and defensible ~~Result~~ results of compliance testing in appropriate units of measure~~;~~, obtained in accordance with the approved method and the laboratory Quality Assurance Plan, as described in R9-14-613, by use of proper laboratory technique.
   b) Any result not obtained in accordance with the approved method and the laboratory Quality Assurance Plan by use of proper laboratory technique, shall be documented as such on the report.
4. A listing of each approved method used associated with the reported result;
5. Sample information including the unique sample identification assigned by the laboratory, location or location code of sample collection, sample collection date and time, the name of the person who collected the sample, and the facility or person who submitted the sample to the laboratory;
6. The date of the final report; and
7. Laboratory director's or designee signature.

~~R9-14-615~~ R9-14-616. Laboratory Safety

Licensed environmental laboratories shall comply with all applicable federal, state, and local regulations regarding occupational safety and health.

~~R9-14-616~~ R9-14-617. Mobile Laboratories

A. A laboratory license is required for each mobile laboratory, unless the laboratory owner chooses the single licensure option described in ~~R9-14-605.B~~ R9-14-606(B). All requirements of this Article shall be met by the mobile laboratory.

B. ~~The~~ Upon request, the owner of the mobile laboratory shall provide ~~to the Department, upon request,~~ information ~~as to the~~ of its location and scope of its compliance testing to the Department ~~performed by the mobile laboratory~~.

~~R9-14-617~~ R9-14-618. Out-of-State Environmental Laboratory

Licensure

A. Out-of-state laboratories applying for an initial license or a renewal license shall comply with the requirements of A.R.S. §§ 36-495 through 36-495.15 and this Article.

B. In addition to licensure fees, an out-of-state laboratory shall pay all actual expenses incurred by the Department as a result of its location in another state.

C. An out-of-state laboratory shall ~~post a bond in~~ pay an amount sufficient to cover:

1. The estimated cost of all ~~investigation and~~ routine ~~inspection~~ inspections ~~costs incurred by the Department~~ during the licensure period of that laboratory,
2. The amount the actual costs of routine lab inspections exceed the estimated costs, and
3. Additional expenses incurred by the Department for each on-site investigation.